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section a

technical notes

general

This publication presents detailed estimates of employment of scientists, engineers, and technicians (SE&T) in private industry in August 1980. The data presented update to August 1980 the 2-digit standard industrial classification (SIC)[1] industries' employment estimates previously presented in *Scientists, Engineers, and Technicians in Private Industry, 1978-80.*[2] In addition, estimates are given for several nonmanufacturing industries not included in the latter report. These industries are found under table headings "Transportation, Communications, Public Utilities" and "Wholesale and Retail Trade." Also, more disaggregated industry detail is included—at the 3-digit SIC level—than has ever before been published for employment of SE&T personnel.

The report consists of summary and detailed tables. The summary tables present aggregated data by broad occupational groups and by broad industries of employment to identify major concentration points. For example, table B-1 shows that for engineers as a group in private industry, nearly 60 percent were employed in manufacturing. Tables B-2 through B-5 display, for each broad occupation, the detailed industries where employment is concentrated. For example, table B-4 shows the 10 detailed industries that account for nearly 60 percent of total private industry employment of engineers. Tables B-7 through B-9 present the employment matrix for 189 industries by 12 engineering specialties, 17 scientific specialties, and 11 technician specialties. Table B-10 provides data on the proportion of total employment by industry accounted for by scientific and technical personnel.

These data are based on surveys carried out by the Bureau of Labor Statistics (BLS), Department of Labor, as part of its Occupational Employment Statistics (OES) Program, which is conducted by the Division of Occupational Outlook in cooperation with State Employment Security agencies. Supplemental surveys, supported by the National Science Foundation (NSF), were conducted directly by BLS in the nonparticipating States to provide national estimates.

The surveys, conducted triennially, cover manufacturing industries in the first year, selected nonmanufacturing industries in the second year, and trade and regulated industries in the third year.

These estimates were prepared by BLS for 1977 manufacturing industries employment and 1978 nonmanufacturing employment except for trade, transportation, communications, and public utilities. Estimates for the latter industries were made for 1979.

The 1977 base year estimates for manufacturing industries were published at the 2-digit SIC level in *Employment of Scientists, Engineers, and Technicians in Manufacturing Industries, 1977* (Detailed Statistical Tables) (NSF 80-306). The 1978 base-year estimates for nonmanufacturing industries (except trade and regulated industries) were published at the 2-digit SIC level in *Scientists, Engineers, and Technicians in Private Industry, 1978-80* (NSF 80-320). Information on the scope and methods of collection of the data is included in these reports. The base-year data for the 1979 trade and regulated industries were collected using methods consistent with those used for the other sectors. Detailed descriptions can be found in the NSF publications referenced above. The actual 1979 employment statistics for the trade, transportation, communications, and public utilities industries are available on request from the Division of Science Resources Studies, NSF. The NSF reports are also available from: National Science Foundation, Division of Science Resources Studies, 1800 G Street, N.W., Washington, D.C. 20550.

current employment estimates

Based on the assumption that the skill-mix within industry changes relatively slowly over a short period of time, it is possible to use the results of the 1977, 1978, and 1979 OES surveys for estimating changes in SE&T requirements without surveying the sectors each year. By applying the percentage distribution of the occupational-mix for a given industry in the base period to current estimates of that industry's total

[1] Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual* (Washington, D.C.: Supt. of Documents, U.S. Government Printing Office).

[2] National Science Foundation, *Scientists, Engineers, and Technicians in Private Industry, 1978-80* (NSF 80-320) (Washington, D.C., 1981). The report contains estimates at the 2-digit level of aggregation for January 1980. The August 1980 estimates appearing below in these Detailed Statistical Tables, are based on extrapolations of 3-digit data. Since the August 1980 estimates are more accurate than the previously published January 1980 estimates, they should not be used as measures of trends between January and August as the changes may be partially accounted for by a reduction in errors associated with the improved estimating techniques.

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employment,[3] updated estimates of occupational employment may be obtained. Specifically, let:

E_{it} = total employment in industry i, August 1980

E_{it-j} = total employment in industry i in years t-j

O_{kit} = employment in occupation k in industry i, August 1980

O_{kit-j} = employment in occupation k, industry i, years t-j

To estimate current employment estimates for a given occupation in a given industry, the following equation is used:

$$O_{kit} = Okit\text{-}j \times (Eit/Eit\text{-}j)$$

[3]Department of Labor, Bureau of Labor Statistics, *Employment and Earnings* (monthly) (Washington, D.C.: Supt. of Documents, U.S. Government Printing Office).

definition of scientists, engineers, and technicians

"Scientists" includes persons (1) concerned with research in science or in the application of scientific laws and principles to specific situations, (2) engaged in work which requires a knowledge of the field equivalent to that acquired through completion of a 4-year college course with a major in the specific field, and, (3) who spend the major proportion of their time in such activity. "Engineers" includes persons (1) concerned with the practical application of physical laws and principles of engineering for the development and utilization of machines, materials, instruments, processes, and services, (2) engaged in such work at a level which requires knowledge of engineering at least equivalent to that acquired through the completion of a 4-year college course with a major in one of the engineering fields, and (3) who spend the major proportion of their time in such activity. "Technicians" includes persons usually working under the direction of a scientist or engineer, who assist in the application of engineering or scientific laws and principles, or in research.

section b

detailed statistical tables

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summary, august 1980

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Table B-1.—Scientists, engineers, and technicians in private industry by major occupational group and selected major industries of employment: August 1980

[In thousands]

Selected Industries	Scientists, engineers, and technicians	Scientists					Engineers	Engineering and science technicians
		Physical	Life	Mathematical	Computer specialists	Social		
Total industries	2,514	107	23	30	144	16	961	1,233
Mining	76	20	0	1	3	0	27	26
Coal	7	(1)	0	(1)	(1)	0	4	3
Oil and gas extraction	60	17	0	1	3	0	20	19
Construction	108	0	0	0	1	0	53	54
General building contractors	23	0	0	0	(1)	0	11	12
General contractors excluding building	45	0	0	0	1	0	28	16
Special trade contractors	40	0	0	0	0	0	13	27
Manufacturing	1,248	62	13	9	37	3	571	554
Primary metals	39	2	0	0	2	0	18	18
Fabricated Metals	66	1	0	•	1	0	29	34
Machinery	265	1	0	•	9	0	114	140
Electrical machinery	282	2	0	2	7	2	149	119
Transportation equipment	207	2	0	4	5	1	132	64
Instruments	89	3	(1)		1	0	40	44
Chemicals	146	35	12	2	5	0	38	56
Refined petroleum products	26	5	0	1	2	0	11	9
Transportation, communications and public utilities	180	2	0	1	10	(1)	75	93
Transportation	24	(1)	0	(1)	2	0	5	16
Communication	74	0	0	(1)	4	(1)	38	32
Electric, gas, and sanitary services	82	2	0	0	4	0	33	44
Wholesale and retail trade	200	1	1	1	25	(1)	43	128
Wholesale	184	1	1	(1)	24	(1)	43	116
Retail	15	(1)	(1)	(1)	1	(1)	1	13
Finance, insurance, and real estate	69	(1)	0	8	22	2	7	31
Banking	17	0	0	0	8	1	1	8
Insurance	42	0	0	8	12	(1)	4	18
Real estate	6	0	0	0	(1)	0	2	3
Services	632	23	10	10	46	12	184	348
Business services	272	14	4	5	39	6	65	140
Repair services	14	0	0	0	0	0	(1)	14

[1] Less than 0.5.

Note: Component may not add to totals because of rounding.

Sources: Bureau of Labor Statistics and National Science Foundation.

Table B-2.—Scientists, engineers, and technicians by selected industries of employment: August 1980

Selected industries	Percent	Thousands
Total, all industries . . .	100	2,514
Major industries. . . .	52	1,311
Engineering and architectural services	11	287
Miscellaneous business services	7	179
Durable goods wholesalers	6	163
Communications equipment	6	145
Office and computing machines	5	124
Aircraft and parts	5	120
Computer and data processing services	3	78
Electronic components and accessories	3	72
Electric, gas and sanitary services	3	82
Telephone communications	2	61
Other industries. . . .	48	1,203

Sources: Bureau of Labor Statistics and National Science Foundation

Table B-3. Scientists and engineers by selected industries of employment: August 1980

Selected industries	Percent	Thousands
Total, all industries . . .	100	1,281
Major industries. . . .	51	653
Engineering and architectural services	10	122
Miscellaneous business services	8	99
Communications equipment	7	94
Aircraft and parts	6	83
Durable goods wholesalers	5	58
Office and computing machines	4	56
Electric, gas and sanitary services	3	38
Electronic components and accessories	3	36
Guided missiles and space vehicles	3	35
Telephone communications	3	32
Other industries. . . .	49	628

Sources: Bureau of Labor Statistics and National Science Foundation

Table B-4.—Scientists by selected industries of employment: August 1980

Selected industries	All scientists	
	Percent	Thousands
Total, all industries	100	320
Major industries	49	156
Misc. business equipment	13	42
Durable goods wholesalers	7	21
Drugs	6	20
Crude petroleum and natural gas	5	16
Noncommercial educational, scientific and research organizations	4	12
Communications equipment	3	10
Ind. org. chemicals	3	10
Life insurance	3	8
Aircraft and parts	3	8
Banking	3	9
Other industries	51	164
	Physical scientists	
Total, all industries	100	107
Major industries	60	64
Misc. business services	13	14
Crude petroleum and natural gas extraction	12	13
Ind. org. chemicals	7	8
Drugs	7	7
Ind. org. chemicals	5	5
Petroleum refining	4	4
Engineering and architectural services	4	4
Plastics materials and synthetics	3	3
Misc. chemical products	3	3
Noncommercial educational, scientific, and research organizations	3	3
Other industries	40	43
	Life scientists	
Total, all industries	100	23
Major industries	96	22
Drugs	43	10
Noncommercial educational, scientific and research organizations	22	5
Misc. business services	17	4
Ind. org. chemicals	4	1
Nondurable goods wholesalers	4	1

Selected industries	Life scientists—Cont.	
	Percent	Thousands
Total, all industries	100	23
Engineering and architectural services	4	1
Other industries	4	1
	Mathematical scientists	
Total, all industries	100	30
Major industries	67	20
Life insurance	13	4
Misc. business services	13	4
Communications equipment	7	2
Aircraft and parts	7	2
Fire, marine and casualty insurance	7	2
Services, n.e.c	7	2
Crude petroleum and natural gas extraction	3	1
Motor vehicles and equipment	3	1
Petroleum refining	3	1
Insurance agents, brokers and services	3	1
Other industries	33	10
	Computer specialists	
Total, all industries	100	144
Major industries	68	98
Computer and data processing services	16	23
Durable goods wholesalers	15	21
Misc. business services	10	14
Banking	6	8
Office and computing machines	5	7
Commercial and stock saving banks	5	7
Communications equipment	3	5
Life insurance	3	5
Aircraft and parts	3	4
Telephone communications	3	4
Other industries	32	46
	Social scientists	
Total, all industries	100	16
Major industries	70	11
Misc. business services	38	6
Noncommercial educational, scientific and research organizations	19	3
Communications equipment	13	2
Other industries	30	5

Sources: Bureau of Labor Statistics and National Science Foundation

Table B-5.—Engineers by selected industries of employment: August 1980

Selected industries	All engineers	
	Percent	Thousands
Total, all industries	100	961
Major industries	57	545
Engineering and architectural services	12	114
Communications equipment	9	84
Aircraft & parts	8	75
Misc. business services	6	57
Office and computing machines	5	49
Durable goods wholesalers	4	37
Electronic components and accessories	4	34
Guided missiles and space vehicles	4	34
Electric, gas and sanitary services	3	33
Telephone communications	3	28
Other industries	43	416
	Aeronautical/astronautical engineers	
Total, all industries	100	54
Major industries	87	47
Aircraft and parts	56	30
Guided missiles and space vehicles	31	17
Other industries	13	7
	Chemical engineers	
Total, all industries	100	42
Major industries	57	24
Ind. org. chemicals	25	6
Ind. inorg. chemicals	17	4
Plastics materials & synthetics	17	4
Petroleum refining	17	4
Engineering and architectural services	17	4
Nondurable goods wholesalers	8	2
Other industries	43	18
	Civil engineers	
Total, all industries	100	100
Major industries	75	75

Selected industries	Civil engineers—Cont.	
	Percent	Thousands
Engineering & architectural services	50	50
Durable goods wholesalers	17	17
Heavy construction, except highway	8	8
Other industries	25	25
	Electrical/electronic engineers	
Total, all industries	100	287
Major industries	71	203
Communications equipment	20	56
Office and computing machines	11	31
Electronic components and accessories	8	23
Engineering and architectural services	7	21
Misc. business services	7	20
Durable goods wholesalers	6	18
Telephone communications	6	18
Electric, gas and sanitary services	6	16
Other industries	29	84
	Mechanical engineers	
Total, all industries	100	174
Major industries	50	87
Engineering and architectural services	14	24
Aircraft and parts	6	11
Misc. business services	6	11
Construction and related machinery	5	8
Communications equipment	4	7
Metal working machinery	4	7
Heavy construction except highways	4	7
General industrial machinery	3	6
Fabricated metal products	3	6
Other industries	50	87

Table B-5.—Engineers by selected industries of employment: August 1980—Con.

Selected industries	Other engineers[1]	
	Percent	Thousands
Total, all industries	100	305
Major industries....	44	133
Aircraft and parts	9	28
Communications equipment.....	7	20
Misc. business services	5	14
Office and computing machinery	4	13
Engineering and architectural services	4	13
Guided missiles and space vehicles	4	12
Crude petroleum and natural gas extraction	4	11
Motor vehicles and equipment	3	8
Heavy construction except highway	2	7
Telephone communications	2	7
Other industries....	56	172

[1] Includes industrial, metallurgical, mining, petroleum, safety, and all other engineers, not specified.

Sources: Bureau of Labor Statistics and National Science Foundation.

Table B-6.—Technicians by selected industries of employment: August 1980

Selected industries		
	Percent	Thousands
Total, all industries ...	100	1,233
Major industries.....	54	665
Engineering and architectural services	13	165
Durable goods wholesalers.....	9	105
Misc. business services	7	81
Office and computing machines .	6	68
Communications and equipment.....	4	52
Computer and data processing services	4	48
Electric, gas and sanitary services	4	44
Aircraft and parts ..	3	37
Electronic components and accessories.....	3	36
Telephone communications..	2	29
Other industries.....	46	568

Sources: Bureau of Labor Statistics and the National Science Foundation

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980

[In thousands]

Industry	Total scientists, engineers, and technicians	Total scientists and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Total	2,514	1,281	961	54	42	100	287	77
Mining	76	50	27	0	1	1	1	(1)
Metallic minerals	6	4	2	0	0	0	0	(1)
Iron ore	1	(1)	(1)	0	0	0	0	0
Copper ore	1	1	1	0	0	0	0	(1)
Lead and zinc ores	1	(1)	(1)	0	0	0	0	0
Ferroalloy ores, except vanadium	1	1	(1)	0	0	0	0	0
Metal mining services	1	1	(1)	0	0	0	0	0
Misc. metallic ores	2	2	1	0	0	0	0	0
Coal	7	4	4	0	0	(1)	0	(1)
Bituminous and lignite	7	4	4	0	0	(1)	0	(1)
Oil and gas extraction	60	40	20	0	1	1	1	0
Crude petroleum and natural gas	43	30	14	0	1	1	1	0
Oil and gas services	17	10	6	0	0	(1)	0	0
Nonmetallic mineral mining	3	2	1	0	(1)	(1)	0	0
Crushed and broken stone	1	(1)	(1)	0	0	(1)	0	0
Clay, ceramic, etc., minerals	1	(1)	(1)	0	0	0	0	0
Chemical and fertilizer minerals	2	1	(1)	0		0	0	0
Construction	108	54	53	0	0	20	8	0
General building contractors	23	11	11	0	0	6	1	0
Residential building contractors	6	3	3	0	0	2	0	0
Operative builders	1	(1)	(1)	0	0	(1)	0	0
Nonresidential building contractors	16	9	8	0	0	4	1	0
Other construction contractors	45	29	28	0	0	9	5	0
Highway and street construction	4	2	2	0	0	2	0	0
Heavy construction except highway	41	27	26	0	0	8	5	0
Special trade contractors	40	13	13	0	0	5	3	0
Plumbing, heating, air conditioning	8	4	4	0	0	1	0	0
Electrical work	24	4	4	0	0	1	3	0
Roofing, sheet metal work	1	1	1	0	0	(1)	0	0
Concrete work	1	1	1	0	0	(1)	0	0
Misc. special trade contractors	6	3	3	0	0	2	0	0
Manufacturing	1,248	695	571	47	28	5	171	65
Durable goods manufacturing	984	546	495	47	4	3	166	55
Lumber and wood products	5	2	1	0	0	0	0	(1)
Logging camps and contractors	1	(1)	(1)	0	0	0	0	0
Sawmills and planing mills	2	(1)	(1)	0	0	0	0	0
Millwork and related products	2	1	1	0	0	0	0	(1)
Wood buildings and mobile homes	1	(1)	(1)	0	0	0	0	(1)
Misc. wood products	1	(1)	(1)	0	0	0	0	(1)
Furniture and fixtures	6	2	2	0	0	0	0	1
Household furniture	3	1	1	0	0	0	0	1
Office furniture	1	1	1	0	0	0	0	(1)
Public building furniture	1	(1)	(1)	0	0	0	0	(1)
Partitions and fixtures	1	(1)	(1)	0	0	0	0	(1)
Misc. furniture and fixtures	1	(1)	(1)	0	0	0	0	(1)
Stone, clay and glass products	17	8	7	0	1		1	1
Flat glass	1	(1)	(1)	0	0	0	(1)	(1)
Glass and glassware, pressed or blown	3	2	1	0	(1)	0	(1)	(1)
Products of purchased glass	1	(1)	(1)	0	0	0	0	(1)
Hydraulic cement	2	1	1	0	(1)	(1)	(1)	(1)
Structural clay products	1	(1)	(1)	0	0	(1)	(1)	0
Pottery and related products	1	1	1	0	0	1	(1)	0
Concrete, gypsum, and plaster products	3	1	1	0	(1)	0	0	0
Misc. nonmetallic mineral products	6	3	3	0	(1)	0	(1)	1

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Total scientists, engineers, and technicians	Total scientists and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Primary metals	39	22	18	0	(1)	1	2	3
Blast furnace and primary steel products	17	9	7	0	0	1	1	1
Iron and steel foundries	5	3	3	0	0	0	0	1
Primary nonferrous metals	4	2	2	0	(1)	1	(1)	0
Secondary nonferrous metals	1	1	1	0	(1)	0	1	1
Nonferrous rolling and drawing	10	6	5	0	(1)	0	(1)	(1)
Nonferrous foundries	2	1	1	0	0	0	0	(1)
Misc. primary metal products	1	1	(1)	0	0	0	0	0
Fabricated metal products	66	32	29	0	(1)	1	2	5
Metal cans and shipping containers	1	1	1	0	0	0	0	(1)
Cutlery, handtools, and hardware	5	3	3	0	0	0	0	1
Plumbing and heating products	3	2	2	0	0	0	(1)	(1)
Fabricated structural metal products	30	12	11	0	0	1	(1)	1
Screw machine products, bolts, etc.	2	1	1	0	0	0	0	(1)
Metal forgings and stampings	5	3	3	0	0	0	0	1
Coating, engraving and allied services	1	1	1	0	(1)	0	0	0
Ordnance and accessories	6	4	3	0	(1)	(1)	1	1
Misc. fabricated metal products	11	6	5	0	0	0	(1)	1
Machinery	265	125	114	0	(1)	1	38	18
Engines and turbines	14	9	8	0	0	0	1	1
Farm and garden machinery	8	4	4	0	0	0	0	1
Construction and related machinery	34	16	15	0	0	1	1	3
Metalworking machinery	24	12	12	0	0	0	2	2
Special industry machinery	17	7	7	0	(1)	0	1	1
General industrial machinery	27	14	13	0	0	0	1	2
Office and computing machines	124	56	49	0	0	0	31	6
Refrigeration and service industry machinery	9	4	4	0	0	0	(1)	1
Misc. machinery	8	4	4	0	0	0	(1)	1
Electrical machinery	282	163	149	0	2	0	92	12
Electrical distribution equipment	10	5	5	0	0	0	3	1
Electrical industrial apparatus	22	11	10	0	0	0	6	1
Household appliances	7	4	3	0	0	0	1	1
Electrical lighting and wiring equipment	9	5	5	0	0	0	2	1
Radio and TV receiving equipment	8	4	4	0	0	0	2	(1)
Communication equipment	145	93	84	0	1	0	56	4
Electronic components and accessories	72	35	34	0	1	0	23	3
Misc. electrical equipment	10	6	5	0	(1)	0	2	1
Transportation equipment	207	143	132	47	0	[illegible]	11	11
Motor vehicles and equipment	28	18	16	0	0	0	(1)	3
Aircraft and parts	120	83	75	30	0	0	5	6
Ship and boat building and repairing	9	4	4	0	0	0	(1)	(1)
Railroad equipment	4	3	3	0	0	0	0	(1)
Guided missiles and space vehicles	45	35	34	17	0	0	5	1
Misc. transportation equipment	1	1	1	0	0	0	0	(1)
Instruments	89	45	40	0	1	0	21	3
Engineering and scientific instruments	22	11	11	0	(1)	0	6	(1)
Measuring and controlling instruments	34	18	16	0	(1)	0	10	1
Optical instruments and lenses	7	4	3	0	0	0	2	(1)
Medical instruments and supplies	11	4	3	0	(1)	0	1	1
Ophthalmic goods	1	(1)	(1)	0	0	0	0	(1)
Photographic equipment and supplies	14	7	6	0	0	0	3	(1)
Watches, clocks, and watchcases	1	(1)	(1)	0	0	0	(1)	(1)
Miscellaneous manufacturing	8	3	3	0	0	0	0	1
Musical instruments and parts	1	(1)	(1)	0	0	0	0	(1)
Toys and sporting goods	2	1	1	0	0	0	0	(1)
Pens, pencils, office and art supplies	1	(1)	(1)	0	0	0	0	(1)
Costume jewelry and notions	1	(1)	(1)	0	0	0	0	(1)
Misc. manufacturers	3	1	1	0	0	0	0	(1)

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Total scientists, engineers, and technicians	Total scientists and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Nondurable goods	264	149	76	0	24	2	4	10
Food and food products	22	9	4	0	0	0	0	(1)
Meat products	2	(1)	(1)	0	0	0	0	0
Dairy products	2	(1)	(1)	0	0	0	0	0
Canned and preserved fruits and vegetables	3	1	1	0	0	0	0	0
Grain mill products	4	2	(1)	0	0	0	0	0
Bakery products	1	(1)	(1)	0	0	0	0	0
Sugar and confectionery products	3	1	(1)	0	0	0	0	(1)
Fats and oils	1	1	(1)	0	0	0	0	0
Beverages	3	1	1	0	0	0	0	0
Misc. food and kindred products	3	2	1	0	0	0	0	0
Tobacco manufactures	3	1	1	0	0	0	0	0
Cigarettes	2	1	1	0	0	0	0	0
Textiles	17	5	4	0	0	0	0	2
Weaving mills, cotton	1	1	1	0	0	0	0	(1)
Weaving mills, synthetics	3	1	1	0	0	0	0	(1)
Knitting mills	2	1	1	0	0	0	0	(1)
Textile finishing, except wools	2	1	(1)	0	0	0	0	(1)
Floor covering mills	5	(1)	(1)	0	0	0	0	(1)
Yarn and thread mills	1	1	1	0	0	0	0	(1)
Misc. textile goods	2	1	1	0	0	0	0	(1)
Apparel	5	3	3	0	0	0	0	2
Men's and boys' furnishings	2	1	1	0	0	0	0	1
Women's and misses' outerwear	1	1	1	0	0	0	0	1
Women's and children's undergarments	1	(1)	(1)	0	0	0	0	(1)
Misc. fabricated textiles	1	1	1	0	0	0	0	(1)
Paper and allied products	15	9	7	0	1	0	1	1
Pulp mills	1	1	(1)	0	(1)	0	(1)	0
Paper mills, except building paper	7	4	3	0	1	0	(1)	(1)
Paperboard mills	2	1	1	0	(1)	0	(1)	(1)
Misc. converted paper products	4	2	2	0	0	0	(1)	(1)
Paperboard containers and boxes	2	1	1	0	0	0	0	(1)
Printing and publishing	10	4	2	0	0	0	0	(1)
Newspapers	3	1	(1)	0	0	0	0	0
Periodicals	2	1	(1)	0	0	0	0	0
Books	1	(1)	(1)	0	0	0	0	(1)
Misc. publishing	1	(1)	(1)	0	0	0	0	0
Commercial printing	2	1	1	0	0	0	0	0
Manifold business forms	1	(1)	(1)	0	0	0	0	(1)
Greeting card publishing	1	(1)	(1)	0	0	0	0	0
Chemicals	146	90	36	0	18	1	3	3
Industrial inorganic chemicals	22	13	8	0	4	(1)	1	(1)
Plastics materials and synthetics	24	14	10	0	4	0	1	1
Drugs	36	23	3	0	1	0	(1)	1
Soaps, cleaners, and toilet goods	8	6	1	0	(1)	0	0	(1)
Paints and allied products	6	4	1	0	(1)	0	0	(1)
Industrial organic chemicals	35	22	12	0	6	1	1	1
Agricultural chemicals	5	3	2	0	1	0	(1)	(1)
Misc. chemical products	10	6	2	0	1	(1)	(1)	(1)
Refined petroleum products	26	18	11	0	4	1	1	(1)
Petroleum refining	25	17	11	0	4	1	1	(1)
Paving and roofing materials	1	(1)	(1)	0	0	(1)	(1)	0
Misc. petroleum and coal products	1	1	(1)	0	(1)	0	0	(1)
Rubber and plastic products	20	10	8	0	1	0	(1)	2
Tires and inner tubes	5	2	2	0	(1)	0	(1)	(1)
Rubber and plastic hose and belting	1	1	1	0	(1)	0	0	(1)
Fabricated rubber products, n.e.c.	4	2	1	0	(1)	0	(1)	(1)
Misc. plastic products	10	5	4	0	1	0	0	1
Leather products	1	1	1	0	0	0	0	(1)
Footwear, except rubber	1	(1)	(1)	0	0	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Total scientists, engineers, and technicians	Total scientists and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Transportation, communications, public utilities	180	88	75	1	1	3	43	4
Transportation, except railroads	24	8	5	1	0	(1)	1	(1)
Trucking and warehousing	2	1	1	0	0	0	0	0
Water transportation	11	2	2	0	0	0	0	0
Air transportation	7	3	2	1	0	0	(1)	(1)
Pipelines, except natural gas	3	1	1	0	0	(1)	(1)	0
Transportation services	1	(1)	(1)	0	0	0	0	0
Communication	74	42	38	0	0	1	27	2
Telephone	61	33	28	0	0	1	18	2
Radio and TV broadcasting	13	10	9	0	0	0	9	0
Electric, gas and sanitary services	82	38	33	0	1	2	16	2
Wholesale and retail trade	200	72	43	0	3	17	18	0
Wholesale trade	184	69	43	0	3	17	18	0
Durable goods wholesalers	163	58	37	0	1	17	18	0
Nondurable goods wholesalers	21	11	5	0	2	0	1	0
Retail trade	15	3	1	0	0	0	(1)	0
Building materials and garden supplies	1	(1)	(1)	0	0	0	0	0
General merchandise stores	6	1	1	0	0	0		0
Food stores	1	(1)	(1)	0	0	0	0	0
Auto dealers and service stations	1	(1)	(1)	0	0	0	0	0
Furniture and home furnishing stores	1	(1)	(1)	0	0	0	(1)	0
Eating and drinking places	1	(1)	(1)	0	0	0	0	0
Misc. retail stores	4	1	(1)	0	0	0	0	0
Finance, insurance and real estate	69	39	7	0	0	0	0	0
Banking	17	9	1	0	0	0	0	0
Federal Reserve banks	1	1	0	0	0	0	0	0
Commercial and stock saving banks	15	8	1	0	0	0	0	0
Mutual savings banks	1	(1)	0	0	0	0	0	0
Other credit agencies	2	1	0	0	0	0	0	0
Personal credit institutions	1	(1)	0	0	0	0	0	0
Security and commodity brokers and dealers	4	3	0	0	0	0	0	0
Security brokers and dealers	2	1	0	0	0	0	0	0
Security and commodity services	1	1	0	0	0	0	0	0
Insurance	42	24	4	0	0	0	0	0
Life insurance	18	10	1	0	0	0	0	0
Medical services and health insurance	6	3	(1)	0	0	0	0	0
Fire, marine and casualty insurance	13	8	2	0	0	0	0	0
Insurance agents, brokers, and service	4	3	1	0	0	0	0	0
Real estate	6	3	2	0	0	0	0	0
Real estate operators and lessors	1	1	1	0	0	0	0	0
Subdividers and developers	1	1	(1)	0	0	0	0	0
Investment and holding companies	7	5	1	0	0	0	0	0
Holding company offices	2	1	(1)	0	0	0	0	0
Misc. investing	1	1	(1)	0	0	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Total scientists, engineers, and technicians	Total scientists and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Services	632	284	184	6	10	55	46	8
Hotels, motels, and lodging places	2	1	1	0	0	0	0	0
Business services	272	132	65	4	5	3	25	4
Advertising	1	(1)	(1)	0	0	0	0	0
Mailing, reproduction, etc. services	1	(1)	0	0	0	0	0	0
Personnel supply services	13	3	3	0	0	0	2	0
Computer and data processing services	78	30	5	0	0	0	4	
Misc. business services	179	98	57	4	5	3	20	4
Repair services	14	(1)	(1)	0	0	0	(1)	0
Electrical repair services	10	(1)	(1)	0	0	0	(1)	0
Misc. repair services	4	(1)	(1)	0	0	0	(1)	0
Motion pictures	1	(1)	(1)	0	0	0	0	0
Motion picture production	1	(1)	(1)	0	0	0	0	0
Other services	343	151	118	1	4	51	21	3
Medical and dental laboratories	1	1	0	0	0	0	0	0
Job training and vocational rehabilitation	1	(1)	(1)	0	0	0	0	0
Business associations	5	1	(1)	0	0	(1)	0	0
Professional membership organizations	1	(1)	(1)	0	0	0	0	0
Civic, social and fraternal organizations	1	1	0	0	0	0	0	0
Religious organizations	1	0	0	0	0	0	0	0
Engineering and architectural services	287	122	114	1	4	50	21	3
Noncommercial educational, scientific and research organizations	32	16	3	0	(1)	1	0	(1)
Accounting, auditing and bookkeeping	8	4	(1)	0	0	0	0	0
Services, n.e.c.	6	5	1	0	0	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Total	174	9	3	15	7	194	320	107
Mining	1	(1)	3	13	2	6	23	20
Metallic minerals	(1)	(1)	1	0	(1)	1	2	2
Iron ore	(1)	0	(1)	0	0	(1)	(1)	(1)
Copper ore	(1)	(1)	(1)	0	(1)	(1)	(1)	(1)
Lead and zinc ores	0	0	(1)	0	0	(1)	(1)	(1)
Ferroalloy ores, except vanadium	0	0	(1)	0	0	(1)	(1)	(1)
Metal mining services	0	0	0	0	0	(1)	1	1
Misc. metallic ores	0	(1)	(1)	0	(1)	(1)	1	1
Coal	(1)	0	2	0	1	1	1	(1)
Bituminous and lignite	(1)	0	2	0	1	1	1	(1)
Oil and gas extraction	1	0	0	13	1	4	20	17
Crude petroleum and natural gas	1	0	0	9	(1)	2	16	13
Oil and gas services	(1)	0	0	3	(1)	2	4	4
Nonmetallic mineral mining	(1)	0	(1)	0	0	1	1	1
Crushed and broken stone	0	0	(1)	0	0	(1)	(1)	(1)
Clay, ceramic, etc., minerals	0	0	0	0	0	(1)	(1)	(1)
Chemical and fertilizer minerals	(1)	0	(1)	0	0	(1)	(1)	(1)
Construction	14	0	0	0	2	10	1	0
General building contractors	2	0	0	0	1	2	(1)	0
Residential building contractors	(1)	0	0	0	(1)	(1)	0	0
Operative builders	0	0	0	0	0	(1)	0	0
Nonresidential building contractors	2	0	0	0	(1)	2	(1)	0
Other construction contractors	7	0	0	0	1	7	1	0
Highway and street construction	0	0	0	0	(1)	(1)	(1)	0
Heavy construction except highway	7	0	0	0	1	6	1	0
Special trade contractors	5	0	0	0	0	1	0	0
Plumbing, heating, air conditioning	3	0	0	0	0	(1)	0	0
Electrical work	(1)	0	0	0	0	(1)	0	0
Roofing, sheet metal work	(1)	0	0	0	0	0	0	0
Concrete work	(1)	0	0	0	0	(1)	0	0
Misc. special trade contractors	1	0	0	0	0	(1)	0	0
Manufacturing	114	6	0	1	2	133	123	62
Durable goods manufacturing	97	6	0	0	1	117	51	14
Lumber and wood products	(1)	0	0	0	0	1	1	(1)
Logging camps and contractors	0	0	0	0	0	(1)	(1)	0
Sawmills and planing mills	0	0	0	0	0	(1)	1	0
Millwork, and related products	(1)	0	0	0	0	(1)	(1)	0
Wood buildings and mobile homes	0	0	0	0	0	(1)	0	0
Misc. wood products	(1)	0	0	0	0	(1)	(1)	(1)
Furniture and fixtures	1	0	0	0	0	(1)	(1)	0
Household furniture	(1)	0	0	0	0	(1)	(1)	0
Office furniture	(1)	0	0	0	0	(1)	(1)	0
Public building furniture	(1)	0	0	0	0	(1)	0	0
Partitions and fixtures	(1)	0	0	0	0	(1)	0	0
Misc. furniture and fixtures	(1)	0	0	0	0	(1)	(1)	0
Stone, clay and glass products	1	0	0	0	0	3	2	2
Flat glass	(1)	0	0	0	0	(1)	(1)	(1)
Glass and glassware, pressed or blown	1	0	0	0	0	(1)	(1)	(1)
Products of purchased glass	(1)	0	0	0	0	(1)	(1)	(1)
Hydraulic cement	(1)	0	0	0	0	(1)	1	1
Structural clay products	0	0	0	0	0	(1)	(1)	(1)
Pottery and related products	0	0	0	0	0	(1)	0	0
Concrete, gypsum, and plaster products	0	0	0	0	0	1	(1)	(1)
Misc. nonmetallic mineral products	1	0	0	0	0	1	1	1

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Primary metals	4	4	0	0	1	4	4	2
Blast furnace and primary steel products	1	2	0	0	(1)	1	2	1
Iron and steel foundries	1	1	0	0	(1)	1	(1)	(1)
Primary nonferrous metals	1	(1)	0	0	(1)	(1)	(1)	(1)
Secondary nonferrous metals	(1)	(1)	0	0	0	(1)	(1)	(1)
Nonferrous rolling and drawing	1	1	0	0	(1)	1	1	(1)
Nonferrous foundries	(1)	(1)	0	0	(1)	(1)	(1)	(1)
Misc. primary metal products	(1)	(1)	0	0	0	(1)	(1)	(1)
Fabricated metal products	14	(1)	0	0	0	6	3	1
Metal cans and shipping containers	1	0	0	0	0	(1)	(1)	(1)
Cutlery, handtools, and hardware	1	0	0	0	0	1	(1)	(1)
Plumbing and heating products	1	0	0	0	0	(1)	(1)	0
Fabricated structural metal products	6	0	0	0	0	3	1	(1)
Screw machine products, bolts, etc.	1	(1)	0	0	0	(1)	(1)	0
Metal forgings and stampings	1	(1)	0	0	0	1	(1)	(1)
Coating, engraving and allied services	(1)	0	0	0	0	(1)	(1)	(1)
Ordnance and accessories	1	0	0	0	0	(1)	(1)	(1)
Misc. fabricated metal products	3	0	0	0	0	1	(1)	(1)
Machinery	36	1	0	0	0	20	11	1
Engines and turbines	4	(1)	0	0	0	2	1	1
Farm and garden machinery	2	0	0	0	0	1	(1)	0
Construction and related machinery	8	(1)	0	0	0	3	1	(1)
Metalworking machinery	7	0	0	0	0	2	(1)	(1)
Special industry machinery	3	0	0	0	0	1	(1)	(1)
General industrial machinery	6	(1)	0	0	0	3	(1)	(1)
Office and computing machines	4	0	0	0	0	7	7	(1)
Refrigeration and service industry machinery	1	0	0	0	0	1	(1)	(1)
Misc. machinery	2	0	0	0	0	(1)	(1)	(1)
Electrical machinery	17	0	0	0	0	27	14	2
Electrical distribution equipment	1	0	0	0	0	1	(1)	(1)
Electrical industrial apparatus	2	0	0	0	0	1	1	(1)
Household appliances	1	0	0	0	0	1	(1)	(1)
Electrical lighting and wiring equipment	1	0	0	0	0	1	1	(1)
Radio and TV receiving equipment	1	0	0	0	0	1	(1)	0
Communications equipment	7	0	0	0	0	16	10	1
Electronic components and accessories	3	0	0	0	0	4	2	1
Misc. electrical equipment	1	0	0	0	0	2	(1)	(1)
Transportation equipment	17	1	0	0	0	45	11	2
Motor vehicles and equipment	4	0	0	0	0	8	2	1
Aircraft and parts	11	1	0	0	0	21	8	1
Ship and boat building and repairing	1	0	0	0	0	2	(1)	(1)
Railroad equipment	1	0	0	0	0	2	(1)	0
Guided missiles and space vehicles	0	0	0	0	0	12	1	(1)
Misc. transportation equipment	(1)	0	0	0	0	(1)	0	0
Instruments	6	0	0	0	0	11	5	3
Engineering and scientific instruments	2	0	0	0	0	2	1	1
Measuring and controlling instruments	2	0	0	0	0	3	1	(1)
Optical instruments and lenses	1	0	0	0	0	1	(1)	(1)
Medical instruments and supplies	1	0	0	0	0	1	1	1
Ophthalmic goods	(1)	0	0	0	0	(1)	(1)	(1)
Photographic equipment and supplies	0	0	0	0	0	3	1	1
Watches, clocks, and watchcases	(1)	0	0	0	0	(1)	0	0
Miscellaneous manufacturing	1	0	0	0	0	1	1	(1)
Musical instruments and parts	(1)	0	0	0	0	(1)	0	0
Toys and sporting goods	(1)	0	0	0	0	(1)	(1)	(1)
Pens, pencils, office and art supplies	(1)	0	0	0	0	(1)	(1)	(1)
Costume jewelry and notions	(1)	0	0	0	0	(1)	(1)	(1)
Misc. manufacturers	(1)	0	0	0	0	(1)	(1)	(1)

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Nondurable goods	17	0	0	1	2	16	73	48
Food and food products	1	0	0	0	0	3	5	5
Meat products	0	0	0	0	0	(1)	(1)	(1)
Dairy products	0	0	0	0	0	(1)	(1)	(1)
Canned and preserved fruits and vegetables	0	0	0	0	0	1	(1)	(1)
Grain mill products	0	0	0	0	0	(1)	2	2
Bakery products	0	0	0	0	0	(1)	0	0
Sugar and confectionery products	(1)	0	0	0	0	(1)	1	1
Fats and oils	0	0	0	0	0	(1)	1	1
Beverages	(1)	0	0	0	0	1	1	(1)
Misc. food and kindred products	(1)	0	0	0	0	1	1	1
Tobacco manufactures	(1)	0	0	0	0	1	(1)	0
Cigarettes	0	0	0	0	0	1	(1)	0
Textiles	1	0	0	0	0	1	2	1
Weaving mills, cotton	(1)	0	0	0	0	(1)	(1)	(1)
Weaving mills, synthetics	(1)	0	0	0	0	(1)	(1)	(1)
Knitting mills	(1)	0	0	0	0	(1)	(1)	(1)
Textile finishing, except wools	(1)	0	0	0	0	(1)	(1)	(1)
Floor covering mills	(1)	0	0	0	0	0	(1)	(1)
Yarn and thread mills	(1)	0	0	0	0	(1)	(1)	(1)
Misc. textile goods	(1)	0	0	0	0	(1)	(1)	(1)
Apparel	(1)	0	0	0	0	1	0	0
Men's and boys' furnishings	0	0	0	0	0	(1)	0	0
Women's and misses' outerwear	0	0	0	0	0	(1)	0	0
Women's and children's undergarments	0	0	0	0	0	(1)	0	0
Misc. fabricated textiles	(1)	0	0	0	0	(1)	0	0
Paper and allied products	3	0	0	0	0	1	2	2
Pulp mills	(1)	0	0	0	0	(1)	(1)	(1)
Paper mills, except building paper	1	0	0	0	0	(1)	1	1
Paperboard mills	(1)	0	0	0	0	(1)	(1)	(1)
Misc. converted paper products	1	0	0	0	0	(1)	1	(1)
Paperboard containers and boxes	(1)	0	0	0	0	(1)	(1)	(1)
Printing and publishing	(1)	0	0	0	0	1	2	(1)
Newspapers	0	0	0	0	0	(1)	1	0
Periodicals	0	0	0	0	0	(1)	1	0
Books	0	0	0	0	0	(1)	(1)	0
Misc. publishing	0	0	0	0	0	(1)	(1)	0
Commercial printing	0	0	0	0	0	(1)	(1)	(1)
Manifold business forms	(1)	0	0	0	0	(1)	(1)	0
Greeting card publishing	0	0	0	0	0	(1)	0	0
Chemicals	8	0	0	0	1	5	53	35
Industrial inorganic chemicals	1	0	0	0	(1)	(1)	6	5
Plastics materials and synthetics	2	0	0	0	(1)	1	5	3
Drugs	1	0	0	0	0	1	20	7
Soaps, cleaners, and toilet goods	(1)	0	0	0	0	(1)	4	4
Paints and allied products	(1)	0	0	0	0	(1)	3	3
Industrial organic chemicals	2	0	0	0	(1)	1	10	3
Agricultural chemicals	(1)	0	0	0	(1)	(1)	1	1
Misc. chemical products	1	0	0	0	(1)	(1)	4	3
Refined petroleum products	2	0	0	1	(1)	2	7	5
Petroleum refining	2	0	0	1	(1)	2	6	4
Paving and roofing materials	(1)	0	0	0	0	(1)	(1)	(1)
Misc. petroleum and coal products	(1)	0	0	0	0	(1)	(1)	(1)
Rubber and plastic products	3	0	0	0	0	2	2	2
Tires and inner tubes	1	0	0	0	0	(1)	(1)	(1)
Rubber and plastic hose and belting	(1)	0	0	0	0	(1)	(1)	(1)
Fabricated rubber products, n.e.c.	1	0	0	0	0	(1)	1	1
Misc. plastic products	2	0	0	0	0	1	1	1
Leather products	(1)	0	0	0	0	(1)	(1)	(1)
Footwear, except rubber	(1)	0	0	0	0	(1)	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Transportation, communications, public utilities	7	0	0	0	(1)	16	13	2
Transportation, except railroads	1	0	0	0	(1)	2	3	(1)
Trucking and warehousing	0	0	0	0	0	1	1	0
Water transportation	(1)	0	0	0	0	1	(1)	(1)
Air transportation	0	0	0	0	0	(1)	2	(1)
Pipelines, except natural gas	1	0	0	0	(1)	(1)	(1)	(1)
Transportation services	0	0	0	0	0	(1)	(1)	0
Communication	1	0	0	0	0	7	5	0
Telephone	1	0	0	0	0	7	4	0
Radio and TV broadcasting	0	0	0	0	0	1	(1)	0
Electric, gas and sanitary services	5	0	0	0	0	7	5	2
Wholesale and retail trade	2	0	0	0	0	4	28	1
Wholesale trade	2	0	0	0	0	3	26	1
Durable goods wholesalers	0	0	0	0	0	2	21	(1)
Nondurable goods wholesalers	2	0	0	0	0	1	5	1
Retail trade	(1)	0	0	0	0	1	2	(1)
Building materials and garden supplies	0	0	0	0	0	(1)	(1)	0
General merchandise stores	(1)	0	0	0	0	(1)	1	0
Food stores	0	0	0	0	0	(1)	(1)	(1)
Auto dealers and service stations	0	0	0	0	0	(1)	(1)	(1)
Furniture and home furnishing stores	0	0	0	0	0	(1)	(1)	0
Eating and drinking places	0	0	0	0	0	(1)	(1)	0
Misc. retail stores	0	0	0	0	0	(1)	(1)	(1)
Finance, insurance and real estate	0	0	0	0	0	7	32	(1)
Banking	0	0	0	0	0	1	8	0
Federal Reserve banks	0	0	0	0	0	0	1	0
Commercial and stock saving banks	0	0	0	0	0	1	8	0
Mutual savings banks	0	0	0	0	0	0	(1)	0
Other credit agencies	0	0	0	0	0	0	1	0
Personal credit institutions	0	0	0	0	0	0	(1)	0
Security and commodity brokers and dealers	0	0	0	0	0	0	3	0
Security brokers and dealers	0	0	0	0	0	0	1	0
Security and commodity services	0	0	0	0	0	0	1	0
Insurance	0	0	0	0	0	4	20	0
Life insurance	0	0	0	0	0	1	9	0
Medical services and health insurance	0	0	0	0	0	(1)	3	0
Fire, marine and casualty insurance	0	0	0	0	0	2	5	0
Insurance agents, brokers, and service	0	0	0	0	0	1	2	0
Real estate	0	0	0	0	0	2	(1)	0
Real estate operators and lessors	0	0	0	0	0	1	(1)	0
Subdividers and developers	0	0	0	0	0	(1)	(1)	0
Investment and holding companies	0	0	0	0	0	1	4	0
Holding company offices	0	0	0	0	0	(1)	1	0
Misc. investing	0	0	0	0	0	(1)	1	(1)

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Services	36	2	(1)	2	1	19	100	23
Hotels, motels, and lodging places	0	0	0	0	0	1	0	0
Business services	12	2	0	1	1	8	67	14
Advertising	0	0	0	0	0	(1)	(1)	0
Mailing, reproduction, etc. services	0	0	0	0	0	0	(1)	0
Personnel supply services	0	0	0	0	0	1	1	0
Computer and data processing services	(1)	0	0	0	0	1	25	(1)
Misc. business services	11	2	0	1	1	6	42	14
Repair services	0	0	0	0	0	(1)	0	0
Electrical repair services	0	0	0	0	0	0	0	0
Misc. repair services	0	0	0	0	0	(1)	0	0
Motion pictures	0	0	0	0	0	(1)	(1)	0
Motion picture production	0	0	0	0	0	(1)	(1)	0
Other services	24	1	(1)	1	1	10	32	8
Medical and dental laboratories	0	0	0	0	0	0	1	(1)
Job training and vocational rehabilitation	0	0	0	0	0	(1)	(1)	0
Business associations	0	0	0	0	0	(1)	1	(1)
Professional membership organizations	0	0	0	0	0	(1)	(1)	0
Civic, social and fraternal organizations	0	0	0	0	0	0	1	0
Religious organizations	0	0	0	0	0	0	0	0
Engineering and architectural services	24	1	(1)	1	(1)	8	8	4
Noncommercial educational, scientific and research organizations	1	(1)	0	0	(1)	1	12	3
Accounting, auditing and bookkeeping	0	0	0	0	0	(1)	4	(1)
Services, n.e.c.	0	0	0	0	0	(1)	4	1

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Total	63	23	(1)	6	15	23	2	9
Mining	1	18	0	0	1	0	0	0
Metallic minerals	(1)	2	0	0	0	0	0	0
Iron ore	(1)	0	0	0	0	0	0	0
Copper ore	(1)	(1)	0	0	0	0	0	0
Lead and zinc ores	0	(1)	0	0	0	0	0	0
Ferroalloy ores, except vanadium	0	(1)	0	0	0	0	0	0
Metal mining services	0	1	0	0	0	0	0	0
Misc. metallic ores	(1)	1	0	0	0	0	0	0
Coal	(1)	(1)	0	0	0	0	0	0
Bituminous and lignite	(1)	(1)	0	0	0	0	0	0
Oil and gas extraction	0	16	0	0	1	0	0	0
Crude petroleum and natural gas	0	12	0	0	1	0	0	0
Oil and gas services	0	3	0	0	(1)	0	0	0
Nonmetallic mineral mining	(1)	(1)	0	0	(1)	0	0	0
Crushed and broken stone	0	0	0	0	(1)	0	0	0
Clay, ceramic, etc., minerals	(1)	(1)	0	0	0	0	0	0
Chemical and fertilizer minerals	(1)	0	0	0	(1)	0	0	0
Construction	0	0	0	0	0	0	0	0
General building contractors	0	0	0	0	0	0	0	0
Residential building contractors	0	0	0	0	0	0	0	0
Operative builders	0	0	0	0	0	0	0	0
Nonresidential building contractors	0	0	0	0	0	0	0	0
Other construction contractors	0	0	0	0	0	0	0	0
Highway and street construction	0	0	0	0	0	0	0	0
Heavy construction except highway	0	0	0	0	0	0	0	0
Special trade contractors	0	0	0	0	0	0	0	0
Plumbing, heating, air conditioning	0	0	0	0	0	0	0	0
Electrical work	0	0	0	0	0	0	0	0
Roofing, sheet metal work	0	0	0	0	0	0	0	0
Concrete work	0	0	0	0	0	0	0	0
Misc. special trade contractors	0	0	0	0	0	0	0	0
Manufacturing	52	1	0	1	9	13	1	7
Durable goods manufacturing	7	0	0	1	7	1	1	0
Lumber and wood products	0	0	0	0	(1)	1	1	0
Logging camps and contractors	0	0	0	0	0	(1)	(1)	0
Sawmills and planing mills	0	0	0	0	0	(1)	1	0
Millwork, and related products	0	0	0	0	0	(1)	(1)	0
Wood buildings and mobile homes	0	0	0	0	0	0	0	0
Misc. wood products	0	0	0	0	(1)	0	0	0
Furniture and fixtures	0	0	0	0	0	0	0	0
Household furniture	0	0	0	0	0	0	0	0
Office furniture	0	0	0	0	0	0	0	0
Public building furniture	0	0	0	0	0	0	0	0
Partitions and fixtures	0	0	0	0	0	0	0	0
Misc. furniture and fixtures	0	0	0	0	0	0	0	0
Stone, clay and glass products	1	0	0	0	(1)	0	0	0
Flat glass	(1)	0	0	0	0	0	0	0
Glass and glassware, pressed or blown	(1)	0	0	0	0	0	0	0
Products of purchased glass	0	0	0	0	(1)	0	0	0
Hydraulic cement	1	0	0	0	(1)	0	0	0
Structural clay products	(1)	0	0	0	0	0	0	0
Pottery and related products	0	0	0	0	0	0	0	0
Concrete, gypsum, and plaster products	0	0	0	0	(1)	0	0	0
Misc. nonmetallic mineral products	1	0	0	0	(1)	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Primary metals	2	0	0	0	(1)	0	0	0
Blast furnace and primary steel products	1	0	0	0	(1)	0	0	0
Iron and steel foundries	0	0	0	0	(1)	0	0	0
Primary nonferrous metals	(1)	0	0	0	0	0	0	0
Secondary nonferrous metals	(1)	0	0	0	0	0	0	0
Nonferrous rolling and drawing	(1)	0	0	0	(1)	0	0	0
Nonferrous foundries	0	0	0	0	(1)	0	0	0
Misc. primary metal products	(1)	0	0	0	0	0	0	0
Fabricated metal products	1	0	0	0	1	0	0	0
Metal cans and shipping containers	0	0	0	0	(1)	0	0	0
Cutlery, handtools, and hardware	0	0	0	0	(1)	0	0	0
Plumbing and heating products	0	0	0	0	0	0	0	0
Fabricated structural metal products	0	0	0	0	(1)	0	0	0
Screw machine products, bolts, etc.	0	0	0	0	0	0	0	0
Metal forgings and stampings	0	0	0	0	(1)	0	0	0
Coating, engraving and allied services	(1)	0	0	0	0	0	0	0
Ordnance and accessories	(1)	0	0	0	0	0	0	0
Misc. fabricated metal products	0	0	0	0	(1)	0	0	0
Machinery	0	0	0	0	1	0	0	0
Engines and turbines	0	0	0	0	1	0	0	0
Farm and garden machinery	0	0	0	0	0	0	0	0
Construction and related machinery	0	0	0	0	(1)	0	0	0
Metalworking machinery	0	0	0	0	(1)	0	0	0
Special industry machinery	0	0	0	0	(1)	0	0	0
General industrial machinery	0	0	0	0	(1)	0	0	0
Office and computing machines	0	0	0	0	(1)	0	0	0
Refrigeration and service industry machinery	0	0	0	0	(1)	0	0	0
Misc. machinery	0	0	0	0	(1)	0	0	0
Electrical machinery	(1)	0	0	0	2	0	0	0
Electrical distribution equipment	0	0	0	0	(1)	0	0	0
Electrical industrial apparatus	0	0	0	0	(1)	0	0	0
Household appliances	0	0	0	0	(1)	0	0	0
Electrical lighting and wiring equipment	0	0	0	0	(1)	0	0	0
Radio and TV receiving equipment	0	0	0	0	0	0	0	0
Communications equipment	0	0	0	0	1	0	0	0
Electronic components and accessories	(1)	0	0	0	(1)	0	0	0
Misc. electrical equipment	0	0	0	0	(1)	0	0	0
Transportation equipment	1	0	0	0	2	0	0	0
Motor vehicles and equipment	0	0	0	0	1	0	0	0
Aircraft and parts	1	0	0	0	1	0	0	0
Ship and boat building and repairing	0	0	0	0	(1)	0	0	0
Railroad equipment	0	0	0	0	0	0	0	0
Guided missiles and space vehicles	0	0	0	0	(1)	0	0	0
Misc. transportation equipment	0	0	0	0	0	0	0	0
Instruments	2	0	0	(1)	1	(1)	0	0
Engineering and scientific instruments	(1)	0	0	0	(1)	0	0	0
Measuring and controlling instruments	(1)	0	0	0	(1)	0	0	0
Optical instruments and lenses	(1)	0	0	(1)	0	0	0	0
Medical instruments and supplies	(1)	0	0	0	(1)	(1)	0	0
Ophthalmic goods	(1)	0	0	0	0	0	0	0
Photographic equipment and supplies	1	0	0	0	(1)	0	0	0
Watches, clocks, and watchcases	0	0	0	0	0	0	0	0
Miscellaneous manufacturing	(1)	0	0	0	(1)	0	0	0
Musical instruments and parts	0	0	0	0	0	0	0	0
Toys and sporting goods	0	0	0	0	(1)	0	0	0
Pens, pencils, office and art supplies	(1)	0	0	0	0	0	0	0
Costume jewelry and notions	(1)	0	0	0	0	0	0	0
Misc. manufacturers	0	0	0	0	(1)	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Nondurable goods	45	1	0	1	2	12	(1)	7
Food and food products	5	0	0	0	(1)	(1)	0	0
Meat products	0	0	0	0	(1)	0	0	0
Dairy products	0	0	0	0	(1)	0	0	0
Canned and preserved fruits and vegetables	0	0	0	0	(1)	(1)	0	0
Grain mill products	2	0	0	0	0	(1)	0	0
Bakery products	0	0	0	0	0	0	0	0
Sugar and confectionery products	1	0	0	0	0	(1)	0	0
Fats and oils	1	0	0	0	0	0	0	0
Beverages	(1)	0	0	0	0	(1)	0	0
Misc. food and kindred products	1	0	0	0	0	0	0	0
Tobacco manufactures	0	0	0	0	0	0	0	0
Cigarettes	0	0	0	0	0	0	0	0
Textiles	1	(1)	0	(1)	(1)	0	0	0
Weaving mills, cotton	0	0	0	0	(1)	0	0	0
Weaving mills, synthetics	(1)	(1)	0	0	0	0	0	0
Knitting mills	0	0	0	0	(1)	0	0	0
Textile finishing, except wools	(1)	0	0	0	0	0	0	0
Floor covering mills	(1)	0	0	0	0	0	0	0
Yarn and thread mills	0	0	0	0	(1)	0	0	0
Misc. textile goods	(1)	0	0	0	(1)	0	0	0
Apparel	0	0	0	0	0	0	0	0
Men's and boys' furnishings	0	0	0	0	0	0	0	0
Women's and misses' outerwear	0	0	0	0	0	0	0	0
Women's and children's undergarments	0	0	0	0	0	0	0	0
Misc. fabricated textiles	0	0	0	0	0	0	0	0
Paper and allied products	1	0	0	0	(1)	(1)	0	0
Pulp mills	(1)	0	0	0	0	0	0	0
Paper mills, except building paper	1	0	0	0	(1)	(1)	0	0
Paperboard mills	(1)	0	0	0	0	0	0	0
Misc. converted paper products	(1)	0	0	0	0	0	0	0
Paperboard containers and boxes	0	0	0	0	(1)	0	0	0
Printing and publishing	0	0	0	0	(1)	0	0	0
Newspapers	0	0	0	0	0	0	0	0
Periodicals	0	0	0	0	0	0	0	0
Books	0	0	0	0	0	0	0	0
Misc. publishing	0	0	0	0	0	0	0	0
Commercial printing	0	0	0	0	(1)	0	0	0
Manifold business forms	0	0	0	0	0	0	0	0
Greeting card publishing	0	0	0	0	0	0	0	0
Chemicals	33	0	0	(1)	1	12	(1)	7
Industrial inorganic chemicals	5	0	0	(1)	(1)	(1)	0	(1)
Plastics materials and synthetics	3	0	0	0	(1)	(1)	0	0
Drugs	7	0	0	0	(1)	10	(1)	6
Soaps, cleaners, and toilet goods	4	0	0	0	(1)	(1)	0	(1)
Paints and allied products	3	0	0	0	0	0	0	0
Industrial organic chemicals	7	0	0	(1)	(1)	1	0	1
Agricultural chemicals	1	0	0	0	0	(1)	(1)	(1)
Misc. chemical products	3	0	0	0	(1)	(1)	0	0
Refined petroleum products	4	1	0	0	(1)	0	0	0
Petroleum refining	3	1	0	0	(1)	0	0	0
Paving and roofing materials	(1)	0	0	0	0	0	0	0
Misc. petroleum and coal products	(1)	0	0	0	0	0	0	0
Rubber and plastic products	2	0	0	0	0	0	0	0
Tires and inner tubes	(1)	0	0	0	0	0	0	0
Rubber and plastic hose and belting	(1)	0	0	0	0	0	0	0
Fabricated rubber products, n.e.c.	1	0	0	0	0	0	0	0
Misc. plastic products	1	0	0	0	0	0	0	0
Leather products	(1)	0	0	0	(1)	0	0	0
Footwear, except rubber	0	0	0	0	0	0	0	0

Table B–7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Transportation, communications, public utilities	0	(1)	0	0	2	0	0	0
Transportation, except railroads	0	(1)	0	0	(1)	0	0	0
Trucking and warehousing	0	0	0	0	0	0	0	0
Water transportation	0	0	0	0	(1)	0	0	0
Air transportation	0	0	0	0	(1)	0	0	0
Pipelines, except natural gas	0	(1)	0	0	(1)	0	0	0
Transportation services	0	0	0	0	0	0	0	0
Communication	0	0	0	0	0	0	0	0
Telephone	0	0	0	0	0	0	0	0
Radio and TV broadcasting	0	0	0	0	0	0	0	0
Electric, gas and sanitary services	0	0	0	0	2	0	0	0
Wholesale and retail trade	1	0	0	0	(1)	1	0	0
Wholesale trade	1	0	0	0	(1)	1	0	0
Durable goods wholesalers	(1)	0	0	0	(1)	(1)	0	0
Nondurable goods wholesalers	1	0	0	0	(1)	1	0	0
Retail trade	0	0	0	0	(1)	(1)	0	0
Building materials and garden supplies	0	0	0	0	0	0	0	0
General merchandise stores	0	0	0	0	0	0	0	0
Food stores	0	0	0	0	(1)	0	0	0
Auto dealers and service stations	0	0	0	0	(1)	(1)	0	0
Furniture and home furnishing stores	0	0	0	0	0	0	0	0
Eating and drinking places	0	0	0	0	0	0	0	0
Misc. retail stores	0	0	0	0	(1)	(1)	0	0
Finance, insurance and real estate	0	0	0	0	0	0	0	0
Banking	0	0	0	0	0	0	0	0
Federal Reserve banks	0	0	0	0	0	0	0	0
Commercial and stock saving banks	0	0	0	0	0	0	0	0
Mutual savings banks	0	0	0	0	0	0	0	0
Other credit agencies	0	0	0	0	0	0	0	0
Personal credit institutions	0	0	0	0	0	0	0	0
Security and commodity brokers and dealers	0	0	0	0	0	0	0	0
Security brokers and dealers	0	0	0	0	0	0	0	0
Security and commodity services	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0
Life insurance	0	0	0	0	0	0	0	0
Medical services and health insurance	0	0	0	0	0	0	0	0
Fire, marine and casualty insurance	0	0	0	0	0	0	0	0
Insurance agents, brokers, and service	0	0	0	0	0	0	0	0
Real estate	0	0	0	0	0	0	0	0
Real estate operators and lessors	0	0	0	0	0	0	0	0
Subdividers and developers	0	0	0	0	0	0	0	0
Investment and holding companies	0	0	0	0	1	0	0	0
Holding company offices	0	0	0	0	0	0	0	0
Misc. investing	0	0	0	0	(1)	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Services	10	5	(1)	5	3	10	1	3
Hotels, motels, and lodging places	0	0	0	0	0	0	0	0
Business services	7	2	0	4	1	4	1	2
Advertising	0	0	0	0	0	0	0	0
Mailing, reproduction, etc. services	0	0	0	0	0	0	0	0
Personnel supply services	0	0	0	0	0	0	0	0
Computer and data processing services	0	(1)	0	0	(1)	0	0	0
Misc. business services	7	1	0	4	1	4	1	2
Repair services	0	0	0	0	0	0	0	0
Electrical repair services	0	0	0	0	0	0	0	0
Misc. repair services	0	0	0	0	0	0	0	0
Motion pictures	0	0	0	0	0	0	0	0
Motion picture production	0	0	0	0	0	0	0	0
Other services	2	3	(1)	1	2	6	0	(1)
Medical and dental laboratories	(1)	0	0	0	0	(1)	0	(1)
Job training and vocational rehabilitation	0	0	0	0	0	0	0	0
Business associations	0	0	0	0	(1)	0	0	0
Professional membership organizations	0	0	0	0	0	0	0	0
Civic, social and fraternal organizations	0	0	0	0	0	0	0	0
Religious organizations	0	0	0	0	0	0	0	0
Engineering and architectural services	1	2	(1)	1	1	1	0	0
Noncommercial educational, scientific and research organizations	1	(1)	(1)	1	1	5	0	0
Accounting, auditing and bookkeeping	0	0	0	0	(1)	0	0	0
Services, n.e.c.	0	1	0	0	(1)	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Total	1	11	30	4	12	14	16	5
Mining	0	0	1	0	0	(1)	0	0
Metallic minerals	0	0	0	0	0	0	0	0
Iron ore	0	0	0	0	0	0	0	0
Copper ore	0	0	0	0	0	0	0	0
Lead and zinc ores	0	0	0	0	0	0	0	0
Ferroalloy ores, except vanadium	0	0	0	0	0	0	0	0
Metal mining services	0	0	0	0	0	0	0	0
Misc. metallic ores	0	0	0	0	0	0	0	0
Coal	0	0	(1)	0	0	(1)	0	0
Bituminous and lignite	0	0	(1)	0	0	(1)	0	0
Oil and gas extraction	0	0	1	0	0	1	0	0
Crude petroleum and natural gas	0	0	1	0	0	1	0	0
Oil and gas services	0	0	0	0	0	0	0	0
Nonmetallic mineral mining	0	0	0	0	0	0	0	0
Crushed and broken stone	0	0	0	0	0	0	0	0
Clay, ceramic, etc., minerals	0	0	0	0	0	0	0	0
Chemical and fertilizer minerals	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0
General building contractors	0	0	0	0	0	0	0	0
Residential building contractors	0	0	0	0	0	0	0	0
Operative builders	0	0	0	0	0	0	0	0
Nonresidential building contractors	0	0	0	0	0	0	0	0
Other construction contractors	0	0	0	0	0	0	0	0
Highway and street construction	0	0	0	0	0	0	0	0
Heavy construction except highway	0	0	0	0	0	0	0	0
Special trade contractors	0	0	0	0	0	0	0	0
Plumbing, heating, air conditioning	0	0	0	0	0	0	0	0
Electrical work	0	0	0	0	0	0	0	0
Roofing, sheet metal work	0	0	0	0	0	0	0	0
Concrete work	0	0	0	0	0	0	0	0
Misc. special trade contractors	0	0	0	0	0	0	0	0
Manufacturing	1	4	9	1	4	4	3	0
Durable goods manufacturing	0	(1)	6	1	3	2	3	0
Lumber and wood products	0	0	0	0	0	0	0	0
Logging camps and contractors	0	0	0	0	0	0	0	0
Sawmills and planing mills	0	0	0	0	0	0	0	0
Millwork, and related products	0	0	0	0	0	0	0	0
Wood buildings and mobile homes	0	0	0	0	0	0	0	0
Misc. wood products	0	0	0	0	0	0	0	0
Furniture and fixtures	0	0	0	0	0	0	0	0
Household furniture	0	0	0	0	0	0	0	0
Office furniture	0	0	0	0	0	0	0	0
Public building furniture	0	0	0	0	0	0	0	0
Partitions and fixtures	0	0	0	0	0	0	0	0
Misc. furniture and fixtures	0	0	0	0	0	0	0	0
Stone, clay and glass products	0	0	0	0	0	0	0	0
Flat glass	0	0	0	0	0	0	0	0
Glass and glassware, pressed or blown	0	0	0	0	0	0	0	0
Products of purchased glass	0	0	0	0	0	0	0	0
Hydraulic cement	0	0	0	0	0	0	0	0
Structural clay products	0	0	0	0	0	0	0	0
Pottery and related products	0	0	0	0	0	0	0	0
Concrete, gypsum, and plaster products	0	0	0	0	0	0	0	0
Misc. nonmetallic mineral products	0	0	0	0	0	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Primary metals	0	0	0	0	0	0	0	0
Blast furnace and primary steel products	0	0	0	0	0	0	0	0
Iron and steel foundries	0	0	0	0	0	0	0	0
Primary nonferrous metals	0	0	0	0	0	0	0	0
Secondary nonferrous metals	0	0	0	0	0	0	0	0
Nonferrous rolling and drawing	0	0	0	0	0	0	0	0
Nonferrous foundries	0	0	0	0	0	0	0	0
Misc. primary metal products	0	0	0	0	0	0	0	0
Fabricated metal products	0	0	(1)	0	0	(1)	0	0
Metal cans and shipping containers	0	0	0	0	0	0	0	0
Cutlery, handtools, and hardware	0	0	0	0	0	0	0	0
Plumbing and heating products	0	0	0	0	0	0	0	0
Fabricated structural metal products	0	0	(1)	0	0	(1)	0	0
Screw machine products, bolts, etc.	0	0	0	0	0	0	0	0
Metal forgings and stampings	0	0	(1)	0	0	(1)	0	0
Coating, engraving and allied services	0	0	0	0	0	0	0	0
Ordnance and accessories	0	0	0	0	0	0	0	0
Misc. fabricated metal products	0	0	0	0	0	0	0	0
Machinery	0	0	(1)	0	0	(1)	0	0
Engines and turbines	0	0	0	0	0	0	0	0
Farm and garden machinery	0	0	0	0	0	0	0	0
Construction and related machinery	0	0	(1)	0	0	(1)	0	0
Metalworking machinery	0	0	0	0	0	0	0	0
Special industry machinery	0	0	0	0	0	0	0	0
General industrial machinery	0	0	(1)	0	0	(1)	0	0
Office and computing machines	0	0	0	0	0	0	0	0
Refrigeration and service industry machinery	0	0	0	0	0	0	0	0
Misc. machinery	0	0	0	0	0	0	0	0
Electrical machinery	0	0	2	1	0	1	2	0
Electrical distribution equipment	0	0	0	0	0	0	0	0
Electrical industrial apparatus	0	0	(1)	0	0	(1)	0	0
Household appliances	0	0	0	0	0	0	0	0
Electrical lighting and wiring equipment	0	0	(1)	0	0	(1)	0	0
Radio and TV receiving equipment	0	0	0	0	0	0	0	0
Communications equipment	0	0	2	1	0	1	2	0
Electronic components and accessories	0	0	(1)	0	0	(1)	0	0
Misc. electrical equipment	0	0	(1)	0	0	(1)	0	0
Transportation equipment	0	0	4	0	3	1	1	0
Motor vehicles and equipment	0	0	1	0	1	0	0	0
Aircraft and parts	0	0	2	0	2	1	1	0
Ship and boat building and repairing	0	0	0	0	0	0	0	0
Railroad equipment	0	0	0	0	0	0	0	0
Guided missiles and space vehicles	0	0	(1)	0	0	(1)	0	0
Misc. transportation equipment	0	0	0	0	0	0	0	0
Instruments	0	(1)	(1)	0	0	(1)	0	0
Engineering and scientific instruments	0	0	0	0	0	0	0	0
Measuring and controlling instruments	0	0	(1)	0	0	(1)	0	0
Optical instruments and lenses	0	0	0	0	0	0	0	0
Medical instruments and supplies	0	(1)	(1)	0	0	(1)	0	0
Ophthalmic goods	0	0	0	0	0	0	0	0
Photographic equipment and supplies	0	0	0	0	0	0	0	0
Watches, clocks, and watchcases	0	0	0	0	0	0	0	0
Miscellaneous manufacturing	0	0	0	0	0	0	0	0
Musical instruments and parts	0	0	0	0	0	0	0	0
Toys and sporting goods	0	0	0	0	0	0	0	0
Pens, pencils, office and art supplies	0	0	0	0	0	0	0	0
Costume jewelry and notions	0	0	0	0	0	0	0	0
Misc. manufacturers	0	0	0	0	0	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Nondurable goods	1	4	3	0	1	2	(1)	0
Food and food products	0	(1)	0	0	0	0	0	0
Meat products	0	0	0	0	0	0	0	0
Dairy products	0	0	0	0	0	0	0	0
Canned and preserved fruits and vegetables	0	(1)	0	0	0	0	0	0
Grain mill products	0	(1)	0	0	0	0	0	0
Bakery products	0	0	0	0	0	0	0	0
Sugar and confectionery products	0	(1)	0	0	0	0	0	0
Fats and oils	0	0	0	0	0	0	0	0
Beverages	0	(1)	0	0	0	0	0	0
Misc. food and kindred products	0	0	0	0	0	0	0	0
Tobacco manufactures	0	0	0	0	0	0	0	0
Cigarettes	0	0	0	0	0	0	0	0
Textiles	0	0	0	0	0	0	0	0
Weaving mills, cotton	0	0	0	0	0	0	0	0
Weaving mills, synthetics	0	0	0	0	0	0	0	0
Knitting mills	0	0	0	0	0	0	0	0
Textile finishing, except wools	0	0	0	0	0	0	0	0
Floor covering mills	0	0	0	0	0	0	0	0
Yarn and thread mills	0	0	0	0	0	0	0	0
Misc. textile goods	0	0	0	0	0	0	0	0
Apparel	0	0	0	0	0	0	0	0
Men's and boys' furnishings	0	0	0	0	0	0	0	0
Women's and misses' outerwear	0	0	0	0	0	0	0	0
Women's and children's undergarments	0	0	0	0	0	0	0	0
Misc. fabricated textiles	0	0	0	0	0	0	0	0
Paper and allied products	0	(1)	(1)	0	0	(1)	0	0
Pulp mills	0	0	0	0	0	0	0	0
Paper mills, except building paper	0	(1)	(1)	0	0	(1)	0	0
Paperboard mills	0	0	0	0	0	0	0	0
Misc. converted paper products	0	0	0	0	0	0	0	0
Paperboard containers and boxes	0	0	0	0	0	0	0	0
Printing and publishing	0	0	(1)	0	(1)	(1)	(1)	0
Newspapers	0	0	(1)	0	0	(1)	(1)	0
Periodicals	0	0	(1)	0	(1)	(1)	(1)	0
Books	0	0	0	0	0	0	0	0
Misc. publishing	0	0	(1)	0	0	(1)	0	0
Commercial printing	0	0	(1)	0	0	(1)	(1)	0
Manifold business forms	0	0	0	0	0	0	0	0
Greeting card publishing	0	0	0	0	0	0	0	0
Chemicals	1	4	2	0	1	1	0	0
Industrial inorganic chemicals	0	(1)	(1)	0	0	(1)	0	0
Plastics materials and synthetics	0	(1)	(1)	0	0	(1)	0	0
Drugs	1	3	(1)	0	(1)	(1)	0	0
Soaps, cleaners, and toilet goods	0	(1)	(1)	0	0	(1)	0	0
Paints and allied products	0	0	0	0	0	0	0	0
Industrial organic chemicals	(1)	(1)	(1)	0	(1)	(1)	0	0
Agricultural chemicals	0	0	(1)	0	(1)	0	0	0
Misc. chemical products	0	(1)	(1)	0	0	(1)	0	0
Refined petroleum products	0	0	1	0	(1)	(1)	0	0
Petroleum refining	0	0	1	0	(1)	(1)	0	0
Paving and roofing materials	0	0	0	0	0	0	0	0
Misc. petroleum and coal products	0	0	0	0	0	0	0	0
Rubber and plastic products	0	0	(1)	0	0	(1)	(1)	0
Tires and inner tubes	0	0	(1)	0	0	(1)	0	0
Rubber and plastic hose and belting	0	0	0	0	0	0	0	0
Fabricated rubber products, n.e.c.	0	0	0	0	0	0	0	0
Misc. plastic products	0	0	(1)	0	0	(1)	(1)	0
Leather products	0	0	0	0	0	0	0	0
Footwear, except rubber	0	0	0	0	0	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Transportation, communications, public utilities	0	0	1	0	0	1	(1)	(1)
Transportation, except railroads	0	0	(1)	0	0	(1)	0	0
Trucking and warehousing	0	0	(1)	0	0	(1)	0	0
Water transportation	0	0	0	0	0	0	0	0
Air transportation	0	0	0	0	0	0	0	0
Pipelines, except natural gas	0	0	0	0	0	0	0	0
Transportation services	0	0	(1)	0	0	(1)	0	0
Communication	0	0	(1)	0	0	(1)	(1)	(1)
Telephone	0	0	(1)	0	0	(1)	(1)	(1)
Radio and TV broadcasting	0	0	(1)	0	0	(1)	0	0
Electric, gas and sanitary services	0	0	0	0	0	0	0	0
Wholesale and retail trade	0	1	1	0	(1)	(1)	(1)	(1)
Wholesale trade	0	1	(1)	0	(1)	(1)	(1)	(1)
Durable goods wholesalers	0	(1)	(1)	0	(1)	(1)	(1)	(1)
Nondurable goods wholesalers	0	1	(1)	0	(1)	(1)	(1)	(1)
Retail trade	0	(1)	(1)	0	(1)	(1)	(1)	0
Building materials and garden supplies	0	0	(1)	0	0	(1)	0	0
General merchandise stores	0	0	(1)	0	(1)	(1)	(1)	0
Food stores	0	0	(1)	0	0	(1)	(1)	0
Auto dealers and service stations	0	(1)	(1)	0	0	(1)	(1)	0
Furniture and home furnishing stores	0	0	0	0	0	0	(1)	0
Eating and drinking places	0	0	0	0	0	0	0	0
Misc. retail stores	0	(1)	(1)	0	(1)	(1)	(1)	0
Finance, insurance and real estate	0	0	8	0	3	6	2	1
Banking	0	0	0	0	0	0	1	1
Federal Reserve banks	0	0	0	0	0	0	(1)	(1)
Commercial and stock saving banks	0	0	0	0	0	0	(1)	(1)
Mutual savings banks	0	0	0	0	0	0	0	0
Other credit agencies	0	0	(1)	0	0	(1)	0	0
Personal credit institutions	0	0	0	0	0	0	0	0
Security and commodity brokers and dealers	0	0	1	0	1	(1)	1	(1)
Security brokers and dealers	0	0	(1)	0	(1)	0	(1)	(1)
Security and commodity services	0	0	(1)	0	(1)	0	0	0
Insurance	0	0	8	0	2	5	(1)	(1)
Life insurance	0	0	4	0	1	3	(1)	(1)
Medical services and health insurance	0	0	(1)	0	(1)	1	(1)	(1)
Fire, marine and casualty insurance	0	0	2	0	1	1	0	0
Insurance agents, brokers, and service	0	0	1	0	(1)	1	0	0
Real estate	0	0	0	0	0	0	0	0
Real estate operators and lessors	0	0	0	0	0	0	0	0
Subdividers and developers	0	0	0	0	0	0	0	0
Investment and holding companies	0	0	(1)	(1)	(1)	0	1	(1)
Holding company offices	0	0	(1)	0	(1)	0	(1)	(1)
Misc. investing	0	0	(1)	(1)	0	0	(1)	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Services	0	6	10	3	4	3	12	3
Hotels, motels, and lodging places	0	0	0	0	0	0	0	0
Business services	0	1	5	2	2	1	6	2
Advertising	0	0	(1)	0	(1)	0	0	0
Mailing, reproduction, etc. services	0	0	0	0	0	0	0	0
Personnel supply services	0	0	0	0	0	0	0	0
Computer and data processing services	0	0	1	0	(1)	1	(1)	0
Misc. business services	0	1	4	2	2	0	6	2
Repair services	0	0	0	0	0	0	0	0
Electrical repair services	0	0	0	0	0	0	0	0
Misc. repair services	0	0	0	0	0	0	0	0
Motion pictures	0	0	0	0	0	0	0	0
Motion picture production	0	0	0	0	0	0	0	0
Other services	0	6	6	1	2	3	5	1
Medical and dental laboratories	0	0	0	0	0	0	0	0
Job training and vocational rehabilitation	0	0	0	0	0	0	(1)	0
Business associations	0	0	1	0	1	0	(1)	(1)
Professional membership organizations	0	0	(1)	0	(1)	0	0	0
Civic, social and fraternal organizations	0	0	(1)	0	(1)	0	(1)	0
Religious organizations	0	0	0	0	0	0	0	0
Engineering and architectural services	0	1	1	1	(1)	(1)	(1)	(1)
Noncommercial educational, scientific and research organizations	0	5	1	(1)	(1)	(1)	3	1
Accounting, auditing and bookkeeping	0	0	(1)	0	0	(1)	0	0
Services, n.e.c.	0	0	2	0	(1)	2	(1)	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Total	3	(1)	8	144	1,233	854	282	308
Mining	0	0	0	3	26	18	7	2
Metallic minerals	0	0	0	(1)	2	1	(1)	0
Iron ore	0	0	0	0	(1)	(1)	(1)	0
Copper ore	0	0	0	(1)	(1)	(1)	(1)	0
Lead and zinc ores	0	0	0	0	(1)	(1)	0	0
Ferroalloy ores, except vanadium	0	0	0	0	(1)	0	0	0
Metal mining services	0	0	0	0	(1)	(1)	(1)	0
Misc. metallic ores	0	0	0	0	1	(1)	(1)	0
Coal	0	0	0	(1)	3	2	1	0
Bituminous and lignite	0	0	0	(1)	3	2	1	0
Oil and gas extraction	0	0	0	3	20	14	5	2
Crude petroleum and natural gas	0	0	0	3	13	9	4	(1)
Oil and gas services	0	0	0	(1)	6	5	1	1
Nonmetallic mineral mining	0	0	0	0	2	1	(1)	0
Crushed and broken stone	0	0	0	0	(1)	(1)	0	0
Clay, ceramic, etc., minerals	0	0	0	0	(1)	(1)	0	0
Chemical and fertilizer minerals	0	0	0	0	1	(1)	(1)	0
Construction	0	0	0	1	54	50	25	18
General building contractors	0	0	0	(1)	12	10	8	1
Residential building contractors	0	0	0	0	4	4	3	0
Operative builders	0	0	0	0	1	4	1	(1)
Nonresidential building contractors	0	0	0	(1)	7	6	4	1
Other construction contractors	0	0	0	1	16	14	8	(1)
Highway and street construction	0	0	0	(1)	1	1	0	0
Heavy construction except highway	0	0	0	1	14	12	8	(1)
Special trade contractors	0	0	0	0	27	26	9	17
Plumbing, heating, air conditioning	0	0	0	0	4	4	4	0
Electrical work	0	0	0	0	20	20	3	17
Roofing, sheet metal work	0	0	0	0	(1)	(1)	(1)	0
Concrete work	0	0	0	0	(1)	(1)	(1)	0
Misc. special trade contractors	0	0	0	0	3	1	2	0
Manufacturing	0	0	3	37	554	375	112	124
Durable goods manufacturing	0	0	3	27	438	347	105	121
Lumber and wood products	0	0	0	8	3	2	2	0
Logging camps and contractors	0	0	0	0	8	(1)	0	0
Sawmills and planing mills	0	0	0	0	1	(1)	0	0
Millwork, and related products	0	0	0	(1)	1	1	1	0
Wood buildings and mobile homes	0	0	0	0	1	1	1	0
Misc. wood products	0	0	0	0	(1)	(1)	(1)	0
Furniture and fixtures	0	0	0	(1)	3	3	1	0
Household furniture	0	0	0	(1)	1	1	(1)	0
Office furniture	0	0	0	(1)	(1)	(1)	(1)	0
Public building furniture	0	0	0	0	(1)	(1)	(1)	0
Partitions and fixtures	0	0	0	0	1	1	1	0
Misc. furniture and fixtures	0	0	0	(1)	(1)	(1)	(1)	0
Stone, clay and glass products	0	0	0	(1)	9	5	2	(1)
Flat glass	0	0	0	(1)	(1)	(1)	(1)	0
Glass and glassware, pressed or blown	0	0	0	(1)	2	1	(1)	(1)
Products of purchased glass	0	0	0	0	(1)	(1)	(1)	0
Hydraulic cement	0	0	0	(1)	1	(1)	(1)	(1)
Structural clay products	0	0	0	(1)	(1)	(1)	(1)	0
Pottery and related products	0	0	0	0	1	(1)	(1)	0
Concrete, gypsum, and plaster products	0	0	0	0	2	1	1	0
Misc. nonmetallic mineral products	0	0	0	(1)	3	1	1	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Primary metals	0	0	0	2	18	13	3	1
Blast furnace and primary steel products	0	0	0	1	8	6	2	1
Iron and steel foundries	0	0	0	(1)	2	2	(1)	0
Primary nonferrous metals	0	0	0	(1)	2	1	(1)	(1)
Secondary nonferrous metals	0	0	0	0	1	(1)	(1)	0
Nonferrous rolling and drawing	0	0	0	(1)	4	3	1	1
Nonferrous foundries	0	0	0	0	1	1	(1)	0
Misc. primary metal products	0	0	0	0	(1)	(1)	0	0
Fabricated metal products	0	0	0	1	34	29	20	1
Metal cans and shipping containers	0	0	0	0	1	(1)	(1)	(1)
Cutlery, handtools, and hardware	0	0	0	(1)	2	1	1	(1)
Plumbing and heating products	0	0	0	(1)	1	1	1	(1)
Fabricated structural metal products	0	0	0	1	18	16	14	0
Screw machine products, bolts, etc.	0	0	0	(1)	1	1	(1)	0
Metal forgings and stampings	0	0	0	0	2	1	1	0
Coating, engraving and allied services	0	0	0	0	1	(1)	(1)	0
Ordnance and accessories	0	0	0	(1)	3	2	1	1
Misc. fabricated metal products	0	0	0	(1)	6	4	3	(1)
Machinery	0	0	0	9	140	109	38	37
Engines and turbines	0	0	0	(1)	6	4	2	0
Farm and garden machinery	0	0	0	(1)	4	3	1	(1)
Construction and related machinery	0	0	0	1	18	15	9	1
Metalworking machinery	0	0	0	(1)	12	11	7	1
Special industry machinery	0	0	0	0	10	8	5	0
General industrial machinery	0	0	0	1	14	12	6	1
Office and computing machines	0	0	0	7	68	46	5	33
Refrigeration and service industry machinery	0	0	0	(1)	5	4	2	1
Misc. machinery	0	0	0	0	4	3	2	(1)
Electrical machinery	0	0	2	7	119	102	19	60
Electrical distribution equipment	0	0	0	(1)	5	5	2	2
Electrical industrial apparatus	0	0	0	(1)	11	10	3	4
Household appliances	0	0	0	(1)	3	2	1	1
Electrical lighting and wiring equipment	0	0	0	(1)	4	3	1	1
Radio and TV receiving equipment	0	0	0	(1)	3	3	1	2
Communications equipment	0	0	2	5	52	43	7	28
Electronic components and accessories	0	0	0	1	36	33	4	21
Misc. electrical equipment	0	0	0	(1)	5	4	(1)	1
Transportation equipment	0	0	1	5	64	50	10	6
Motor vehicles and equipment	0	0	0	1	10	8	2	0
Aircraft and parts	0	0	1	4	37	29	8	6
Ship and boat building and repairing	0	0	0	0	5	4	2	(1)
Railroad equipment	0	0	0	(1)	2	1	1	(1)
Guided missiles and space vehicles	0	0	0	(1)	9	8	0	0
Misc. transportation equipment	0	0	0	0	1	1	(1)	(1)
Instruments	0	0	0	1	44	32	8	15
Engineering and scientific instruments	0	0	0	(1)	11	7	2	4
Measuring and controlling instruments	0	0	0	1	16	15	3	8
Optical instruments and lenses	0	0	0	(1)	3	3	(1)	1
Medical instruments and supplies	0	0	0	(1)	7	3	1	1
Ophthalmic goods	0	0	0	(1)	(1)	(1)	(1)	0
Photographic equipment and supplies	0	0	0	0	6	4	1	2
Watches, clocks, and watchcases	0	0	0	0	(1)	(1)	(1)	(1)
Miscellaneous manufacturing	0	0	0	(1)	4	3	1	1
Musical instruments and parts	0	0	0	0	1	(1)	(1)	(1)
Toys and sporting goods	0	0	0	(1)	1	1	(1)	(1)
Pens, pencils, office and art supplies	0	0	0	(1)	(1)	(1)	(1)	0
Costume jewelry and notions	0	0	0	(1)	(1)	(1)	(1)	0
Misc. manufacturers	0	0	0	0	2	1	1	(1)

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Nondurable goods	0	0	(1)	10	115	28	7	3
Food and food products	0	0	0	(1)	13	1	(1)	0
Meat products	0	0	0	0	2	0	0	0
Dairy products	0	0	0	0	1	(1)	0	0
Canned and preserved fruits and vegetables	0	0	0	0	3	(1)	0	0
Grain mill products	0	0	0	(1)	2	(1)	(1)	0
Bakery products	0	0	0	0	1	(1)	0	0
Sugar and confectionery products	0	0	0	(1)	2	(1)	(1)	0
Fats and oils	0	0	0	0	(1)	0	0	0
Beverages	0	0	0	0	2	(1)	0	0
Misc. food and kindred products	0	0	0	0	1	(1)	0	0
Tobacco manufactures	0	0	0	(1)	2	(1)	0	0
Cigarettes	0	0	0	(1)	2	(1)	0	0
Textiles	0	0	0	1	11	1	0	0
Weaving mills, cotton	0	0	0	0	1	(1)	0	0
Weaving mills, synthetics	0	0	0	(1)	1	(1)	0	0
Knitting mills	0	0	0	(1)	1	(1)	0	0
Textile finishing, except wools	0	0	0	(1)	1	(1)	0	0
Floor covering mills	0	0	0	(1)	5	(1)	0	0
Yarn and thread mills	0	0	0	0	1	(1)	0	0
Misc. textile goods	0	0	0	(1)	1	(1)	0	0
Apparel	0	0	0	0	2	(1)	0	0
Men's and boys' furnishings	0	0	0	0	1	(1)	0	0
Women's and misses' outerwear	0	0	0	0	(1)	(1)	0	0
Women's and children's undergarments	0	0	0	0	(1)	(1)	0	0
Misc. fabricated textiles	0	0	0	0	(1)	(1)	0	0
Paper and allied products	0	0	0	1	6	2	1	0
Pulp mills	0	0	0	0	(1)	(1)	(1)	0
Paper mills, except building paper	0	0	0	(1)	3	1	(1)	0
Paperboard mills	0	0	0	(1)	1	(1)	(1)	0
Misc. converted paper products	0	0	0	(1)	2	1	(1)	0
Paperboard containers and boxes	0	0	0	0	1	(1)	(1)	0
Printing and publishing	0	0	(1)	2	6	2	(1)	1
Newspapers	0	0	(1)	1	2	1	0	1
Periodicals	0	0	(1)	(1)	1	(1)	0	0
Books	0	0	0	(1)	1	(1)	0	0
Misc. publishing	0	0	0	(1)	1	(1)	(1)	0
Commercial printing	0	0	(1)	0	1	(1)	0	0
Manifold business forms	0	0	0	(1)	(1)	(1)	0	(1)
Greeting card publishing	0	0	0	0	1	(1)	0	0
Chemicals	0	0	0	5	56	13	4	1
Industrial inorganic chemicals	0	0	0	1	9	3	1	(1)
Plastics materials and synthetics	0	0	0	1	10	3	1	1
Drugs	0	0	0	2	14	1	(1)	0
Soaps, cleaners, and toilet goods	0	0	0	(1)	3	(1)	(1)	(1)
Paints and allied products	0	0	0	(1)	2	(1)	0	0
Industrial organic chemicals	0	0	0	1	13	4	1	(1)
Agricultural chemicals	0	0	0	(1)	2	(1)	(1)	(1)
Misc. chemical products	0	0	0	(1)	4	1	(1)	(1)
Refined petroleum products	0	0	0	2	9	3	1	1
Petroleum refining	0	0	0	2	8	3	1	1
Paving and roofing materials	0	0	0	0	(1)	(1)	0	0
Misc. petroleum and coal products	0	0	0	(1)	(1)	0	0	0
Rubber and plastic products	0	0	(1)	(1)	10	4	1	0
Tires and inner tubes	0	0	0	(1)	3	1	(1)	0
Rubber and plastic hose and belting	0	0	0	0	1	(1)	(1)	0
Fabricated rubber products, n.e.c.	0	0	0	(1)	2	1	(1)	0
Misc. plastic products	0	0	(1)	0	5	2	1	0
Leather products	0	0	0	0	(1)	(1)	0	0
Footwear, except rubber	0	0	0	0	(1)	(1)	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Transportation, communications, public utilities	0	0	(1)	10	93	66	12	30
Transportation, except railroads	0	0	0	2	16	5	(1)	2
Trucking and warehousing	0	0	0	1	1	(1)	0	0
Water transportation	0	0	0	(1)	9	1	0	0
Air transportation	0	0	0	1	4	1	0	1
Pipelines, except natural gas	0	0	0	(1)	1	1	(1)	1
Transportation services	0	0	0	(1)	1	(1)	0	0
Communication	0	0	(1)	4	32	27	5	17
Telephone	0	0	(1)	4	29	25	5	15
Radio and TV broadcasting	0	0	0	(1)	3	2	0	2
Electric, gas and sanitary services	0	0	0	4	44	35	7	11
Wholesale and retail trade	0	0	(1)	25	128	94	6	87
Wholesale trade	0	0	(1)	24	116	91	4	86
Durable goods wholesalers	0	0	(1)	21	105	90	4	85
Nondurable goods wholesalers	0	0	(1)	4	11	2	(1)	1
Retail trade	0	0	(1)	1	13	3	1	1
Building materials and garden supplies	0	0	0	(1)	1	1	1	(1)
General merchandise stores	0	0	(1)	1	5	(1)	(1)	(1)
Food stores	0	0	(1)	(1)	1	(1)	(1)	0
Auto dealers and service stations	0	0	(1)	(1)	1	(1)	(1)	(1)
Furniture and home furnishing stores	0	0	(1)	(1)	1	1	(1)	1
Eating and drinking places	0	0	0	(1)	1	(1)	0	0
Misc. retail stores	0	0	(1)	(1)	3	(1)	(1)	(1)
Finance, insurance and real estate	0	0	(1)	22	31	3	2	0
Banking	0	0	0	8	8	(1)	0	0
Federal Reserve banks	0	0	0	1	1	0	0	0
Commercial and stock saving banks	0	0	0	7	7	(1)	0	0
Mutual savings banks	0	0	0	(1)	(1)	0	0	0
Other credit agencies	0	0	0	1	1	0	0	0
Personal credit institutions	0	0	0	(1)	1	0	0	0
Security and commodity brokers and dealers	0	0	(1)	1	1	0	0	0
Security brokers and dealers	0	0	0	1	1	0	0	0
Security and commodity services	0	0	0	1	1	0	0	0
Insurance	0	0	0	12	18	(1)	(1)	0
Life insurance	0	0	0	5	8	(1)	(1)	0
Medical services and health insurance	0	0	0	3	2	0	0	0
Fire, marine and casualty insurance	0	0	0	4	6	0	0	0
Insurance agents, brokers, and service	0	0	0	1	1	(1)	(1)	0
Real estate	0	0	0	(1)	3	2	2	0
Real estate operators and lessors	0	0	0	(1)	(1)	(1)	(1)	0
Subdividers and developers	0	0	0	(1)	1	1	(1)	0
Investment and holding companies	0	0	1	2	2	1	0	0
Holding company offices	0	0	0	1	1	(1)	0	0
Misc. investing	0	0	(1)	0	(1)	(1)	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Services	3	(1)	5	46	348	247	120	48
Hotels, motels, and lodging places	0	0	0	0	1	1	0	0
Business services	2	0	2	39	140	63	21	27
Advertising	0	0	0	(1)	(1)	(1)	0	0
Mailing, reproduction, etc. services	0	0	0	(1)	1	(1)	(1)	0
Personnel supply services	0	0	0	1	10	7	6	0
Computer and data processing services	0	0	(1)	23	48	8	1	7
Misc. business services	2	0	2	14	81	48	15	20
Repair services	0	0	0	0	14	14	(1)	13
Electrical repair services	0	0	0	0	10	10	0	10
Misc. repair services	0	0	0	0	4	4	(1)	3
Motion pictures	0	0	0	(1)	1	1	0	1
Motion picture production	0	0	0	(1)	1	1	0	1
Other services	1	(1)	3	7	192	170	98	7
Medical and dental laboratories	0	0	0	0	1	0	0	0
Job training and vocational rehabilitation	0	0	(1)	0	(1)	(1)	0	0
Business associations	0	0	(1)	0	3	3	0	0
Professional membership organizations	0	0	0	0	1	(1)	0	0
Civic, social and fraternal organizations	0	(1)	(1)	0	(1)	0	0	0
Religious organizations	0	0	0	0	1	0	0	0
Engineering and architectural services	0	0	(1)	3	165	158	98	6
Noncommercial educational, scientific and research organizations	1	0	2	1	16	8	(1)	1
Accounting, auditing and bookkeeping	0	0	0	4	3	(1)	0	0
Services, n.e.c.	(1)	0	(1)	(1)	1	2	(1)	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Total	29	38	2	25	2	169	100	20
Mining	3	0	0	0	2	6	4	0
Metallic minerals	(1)	0	0	0	0	1	1	0
Iron ore	(1)	0	0	0	0	(1)	(1)	0
Copper ore	(1)	0	0	0	0	(1)	(1)	0
Lead and zinc ores	0	0	0	0	0	(1)	(1)	0
Ferroalloy ores, except vanadium	0	0	0	0	0	0	(1)	0
Metal mining services	0	0	0	0	0	(1)	(1)	0
Misc. metallic ores	(1)	0	0	0	0	(1)	(1)	0
Coal	1	0	0	0	0	(1)	(1)	0
Bituminous and lignite	1	0	0	0	0	1	(1)	0
Oil and gas extraction	1	0	0	0	2	5	2	0
Crude petroleum and natural gas	(1)	0	0	0	1	4	2	0
Oil and gas services	1	0	0	0	1	1	(1)	0
Nonmetallic mineral mining	(1)	0	0	0	0	(1)	1	0
Crushed and broken stone	0	0	0	0	0	(1)	(1)	0
Clay, ceramic, etc., minerals	0	0	0	0	0	(1)	(1)	0
Chemical and fertilizer minerals	(1)	0	0	0	0	(1)	(1)	0
Construction	4	0	0	0	0	3	0	0
General building contractors	1	0	0	0	0	1	0	0
Residential building contractors	(1)	0	0	0	0	(1)	0	0
Operative builders	0	0	0	0	0	0	0	0
Nonresidential building contractors	1	0	0	0	0	1	0	0
Other construction contractors	3	0	0	0	0	2	0	0
Highway and street construction	1	0	0	0	0	(1)	0	0
Heavy construction except highway	2	0	0	0	0	2	0	0
Special trade contractors	0	0	0	0	0	(1)	0	0
Plumbing, heating, air conditioning	0	0	0	0	0	(1)	0	0
Electrical work	0	0	0	0	0	0	0	0
Roofing, sheet metal work	0	0	0	0	0	0	0	0
Concrete work	0	0	0	0	0	0	0	0
Misc. special trade contractors	0	0	0	0	0	(1)	0	0
Manufacturing	0	33	0	0	0	106	71	16
Durable goods manufacturing	0	33	0	0	0	88	11	0
Lumber and wood products	0	0	0	0	0	(1)	1	0
Logging camps and contractors	0	0	0	0	0	(1)	(1)	0
Sawmills and planing mills	0	0	0	0	0	(1)	(1)	0
Millwork, and related products	0	0	0	0	0	(1)	(1)	0
Wood buildings and mobile homes	0	0	0	0	0	(1)	0	0
Misc. wood products	0	0	0	0	0	(1)	(1)	0
Furniture and fixtures	0	0	0	0	0	1	0	0
Household furniture	0	0	0	0	0	(1)	0	0
Office furniture	0	0	0	0	0	(1)	0	0
Public building furniture	0	0	0	0	0	(1)	0	0
Partitions and fixtures	0	0	0	0	0	(1)	0	0
Misc. furniture and fixtures	0	0	0	0	0	(1)	0	0
Stone, clay and glass products	0	(1)	0	0	0	2	2	0
Flat glass	0	0	0	0	0	(1)	0	0
Glass and glassware, pressed or blown	0	(1)	0	0	0	(1)	(1)	0
Products of purchased glass	0	0	0	0	0	(1)	0	0
Hydraulic cement	0	0	0	0	0	(1)	(1)	0
Structural clay products	0	0	0	0	0	(1)	(1)	0
Pottery and related products	0	0	0	0	0	(1)	(1)	0
Concrete, gypsum, and plaster products	0	0	0	0	0	(1)	(1)	0
Misc. nonmetallic mineral products	0	(1)	0	0	0	1	1	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Primary metals	0	1	0	0	0	8	1	0
Blast furnace and primary steel products	0	0	0	0	0	4	(1)	0
Iron and steel foundries	0	(1)	0	0	0	1	0	0
Primary nonferrous metals	0	0	0	0	0	1	(1)	0
Secondary nonferrous metals	0	0	0	0	0	(1)	(1)	0
Nonferrous rolling and drawing	0	(1)	0	0	0	2	(1)	0
Nonferrous foundries	0	0	0	0	0	(1)	0	0
Misc. primary metal products	0	0	0	0	0	(1)	0	0
Fabricated metal products	0	2	0	0	0	6	(1)	0
Metal cans and shipping containers	0	0	0	0	0	(1)	0	0
Cutlery, handtools, and hardware	0	(1)	0	0	0	(1)	0	0
Plumbing and heating products	0	(1)	0	0	0	(1)	0	0
Fabricated structural metal products	0	1	0	0	0	2	0	0
Screw machine products, bolts, etc.	0	(1)	0	0	0	(1)	0	0
Metal forgings and stampings	0	0	0	0	0	1	0	0
Coating, engraving and allied services	0	0	0	0	0	(1)	(1)	0
Ordnance and accessories	0	(1)	0	0	0	1	0	0
Misc. fabricated metal products	0	(1)	0	0	0	1	0	0
Machinery	0	9	0	0	0	25	(1)	0
Engines and turbines	0	1	0	0	0	2	0	0
Farm and garden machinery	0	(1)	0	0	0	2	0	0
Construction and related machinery	0	3	0	0	0	4	0	0
Metalworking machinery	0	1	0	0	0	3	0	0
Special industry machinery	0	0	0	0	0	4	(1)	0
General industrial machinery	0	2	0	0	0	3	(1)	0
Office and computing machines	0	2	0	0	0	6	0	0
Refrigeration and service industry machinery	0	1	0	0	0	1	(1)	0
Misc. machinery	0	(1)	0	0	0	10	0	0
Electrical machinery	0	7	0	0	0	16	2	0
Electrical distribution equipment	0	(1)	0	0	0	1	0	0
Electrical industrial apparatus	0	1	0	0	0	2	(1)	0
Household appliances	0	(1)	0	0	0	1	(1)	0
Electrical lighting and wiring equipment	0	(1)	0	0	0	1	(1)	0
Radio and TV receiving equipment	0	(1)	0	0	0	(1)	0	0
Communications equipment	0	3	0	0	0	5	1	0
Electronic components and accessories	0	2	0	0	0	6	1	0
Misc. electrical equipment	0	(1)	0	0	0	1	(1)	0
Transportation equipment	0	11	0	0	0	23	2	0
Motor vehicles and equipment	0	2	0	0	0	4	(1)	0
Aircraft and parts	0	9	0	0	0	10	1	0
Ship and boat building and repairing	0	0	0	0	0	1	(1)	0
Railroad equipment	0	(1)	0	0	0	1	0	0
Guided missiles and space vehicles	0	0	0	0	0	8	0	0
Misc. transportation equipment	0	(1)	0	0	0	(1)	0	0
Instruments	0	3	0	0	0	7	3	0
Engineering and scientific instruments	0	1	0	0	0	1	(1)	0
Measuring and controlling instruments	0	10	0	0	0	3	(1)	0
Optical instruments and lenses	0	(1)	0	0	0	1	(1)	0
Medical instruments and supplies	0	(1)	0	0	0	1	2	0
Ophthalmic goods	0	0	0	0	0	(1)	0	0
Photographic equipment and supplies	0	(1)	0	0	0	1	1	0
Watches, clocks, and watchcases	0	(1)	0	0	0	(1)	0	0
Miscellaneous manufacturing	0	0	0	0	0	1	(1)	0
Musical instruments and parts	0	0	0	0	0	(1)	0	0
Toys and sporting goods	0	0	0	0	0	(1)	(1)	0
Pens, pencils, office and art supplies	0	0	0	0	0	(1)	(1)	0
Costume jewelry and notions	0	0	0	0	0	(1)	(1)	0
Misc. manufacturers	0	0	0	0	0	(1)	(1)	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Nondurable goods	0	0	0	0	0	18	60	16
Food and food products	0	0	0	0	0	1	9	8
Meat products	0	0	0	0	0	0	1	1
Dairy products	0	0	0	0	0	(1)	1	1
Canned and preserved fruits and vegetables	0	0	0	0	0	(1)	2	1
Grain mill products	0	0	0	0	0	0	2	1
Bakery products	0	0	0	0	0	(1)	(1)	(1)
Sugar and confectionery products	0	0	0	0	0	(1)	1	1
Fats and oils	0	0	0	0	0	0	(1)	(1)
Beverages	0	0	0	0	0	(1)	1	1
Misc. food and kindred products	0	0	0	0	0	(1)	1	1
Tobacco manufactures	0	0	0	0	0	(1)	0	0
Cigarettes	0	0	0	0	0	(1)	0	0
Textiles	0	0	0	0	0	1	6	0
Weaving mills, cotton	0	0	0	0	0	(1)	(1)	0
Weaving mills, synthetics	0	0	0	0	0	(1)	(1)	0
Knitting mills	0	0	0	0	0	(1)	1	0
Textile finishing, except wools	0	0	0	0	0	(1)	1	0
Floor covering mills	0	0	0	0	0	(1)	3	0
Yarn and thread mills	0	0	0	0	0	(1)	(1)	0
Misc. textile goods	0	0	0	0	0	(1)	1	0
Apparel	0	0	0	0	0	(1)	(1)	0
Men's and boys' furnishings	0	0	0	0	0	(1)	(1)	0
Women's and misses' outerwear	0	0	0	0	0	(1)	(1)	0
Women's and children's undergarments	0	0	0	0	0	(1)	(1)	0
Misc. fabricated textiles	0	0	0	0	0	(1)	(1)	0
Paper and allied products	0	0	0	0	0	2	1	0
Pulp mills	0	0	0	0	0	(1)	0	0
Paper mills, except building paper	0	0	0	0	0	1	1	0
Paperboard mills	0	0	0	0	0	(1)	(1)	0
Misc. converted paper products	0	0	0	0	0	1	(1)	0
Paperboard containers and boxes	0	0	0	0	0	(1)	0	0
Printing and publishing	0	0	0	0	0	1	(1)	0
Newspapers	0	0	0	0	0	(1)	0	0
Periodicals	0	0	0	0	0	(1)	0	0
Books	0	0	0	0	0	(1)	0	0
Misc. publishing	0	0	0	0	0	0	0	0
Commercial printing	0	0	0	0	0	(1)	(1)	0
Manifold business forms	0	0	0	0	0	(1)	0	0
Greeting card publishing	0	0	0	0	0	(1)	0	0
Chemicals	0	0	0	0	0	8	35	8
Industrial inorganic chemicals	0	0	0	0	0	2	5	1
Plastics materials and synthetics	0	0	0	0	0	2	5	1
Drugs	0	0	0	0	0	1	11	5
Soaps, cleaners, and toilet goods	0	0	0	0	0	(1)	2	1
Paints and allied products	0	0	0	0	0	(1)	1	(1)
Industrial organic chemicals	0	0	0	0	0	2	8	1
Agricultural chemicals	0	0	0	0	0	(1)	1	(1)
Misc. chemical products	0	0	0	0	0	1	2	(1)
Refined petroleum products	0	0	0	0	0	2	4	0
Petroleum refining	0	0	0	0	0	2	4	0
Paving and roofing materials	0	0	0	0	0	(1)	(1)	0
Misc. petroleum and coal products	0	0	0	0	0	0	(1)	0
Rubber and plastic products	0	0	0	0	0	3	4	0
Tires and inner tubes	0	0	0	0	0	1	1	0
Rubber and plastic hose and belting	0	0	0	0	0	(1)	(1)	0
Fabricated rubber products, n.e.c.	0	0	0	0	0	1	1	0
Misc. plastic products	0	0	0	0	0	1	2	0
Leather products	0	0	0	0	0	(1)	(1)	0
Footwear, except rubber	0	0	0	0	0	(1)	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Transportation, communications, public utilities	2	0	0	0	0	22	2	0
Transportation, except railroads	1	0	0	0	0	2	2	0
Trucking and warehousing	0	0	0	0	0	(1)	(1)	0
Water transportation	1	0	0	0	0	1	(1)	0
Air transportation	0	0	0	0	0	(1)	(1)	0
Pipelines, except natural gas	0	0	0	0	0	(1)	(1)	0
Transportation services	0	0	0	0	0	(1)	(1)	0
Communication	0	0	0	0	0	5	(1)	0
Telephone	0	0	0	0	0	5	(1)	0
Radio and TV broadcasting	0	0	0	0	0	(1)	(1)	0
Electric, gas and sanitary services	1	0	0	0	0	15	1	0
Wholesale and retail trade	0	0	0	0	0	2	2	0
Wholesale trade	0	0	0	0	0	1	2	0
Durable goods wholesalers	0	0	0	0	0	1	(1)	0
Nondurable goods wholesalers	0	0	0	0	0	(1)	1	0
Retail trade	0	0	0	0	0	(1)	(1)	0
Building materials and garden supplies	0	0	0	0	0	0	(1)	0
General merchandise stores	0	0	0	0	0	(1)	0	0
Food stores	0	0	0	0	0	(1)	(1)	0
Auto dealers and service stations	0	0	0	0	0	(1)	0	0
Furniture and home furnishing stores	0	0	0	0	0	0	0	0
Eating and drinking places	0	0	0	0	0	(1)	0	0
Misc. retail stores	0	0	0	0	0	(1)	(1)	0
Finance, insurance and real estate	(1)	0	0	0	0	1	0	0
Banking	0	0	0	0	0	(1)	0	0
Federal Reserve banks	0	0	0	0	0	0	0	0
Commercial and stock saving banks	0	0	0	0	0	(1)	0	0
Mutual savings banks	0	0	0	0	0	0	0	0
Other credit agencies	0	0	0	0	0	0	0	0
Personal credit institutions	0	0	0	0	0	0	0	0
Security and commodity brokers and dealers	0	0	0	0	0	0	0	0
Security brokers and dealers	0	0	0	0	0	0	0	0
Security and commodity services	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	(1)	0	0
Life insurance	0	0	0	0	0	0	0	0
Medical services and health insurance	0	0	0	0	0	0	0	0
Fire, marine and casualty insurance	0	0	0	0	0	0	0	0
Insurance agents, brokers, and service	0	0	0	0	0	(1)	0	0
Real estate	(1)	0	0	0	0	1	0	0
Real estate operators and lessors	0	0	0	0	0	(1)	0	0
Subdividers and developers	(1)	0	0	0	0	(1)	0	0
Investment and holding companies	0	0	0	0	0	1	0	0
Holding company offices	0	0	0	0	0	(1)	0	0
Misc. investing	0	0	0	0	0	(1)	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Services	22	5	2	25	0	29	22	3
Hotels, motels, and lodging places	0	0	0	0	0	1	0	0
Business services	0	5	0	0	0	10	14	0
Advertising	0	0	0	0	0	(1)	0	0
Mailing, reproduction, etc. services	0	0	0	0	0	0	0	0
Personnel supply services	0	0	0	0	0	1	0	0
Computer and data processing services	0	(1)	0	0	0	1	0	0
Misc. business services	0	5	0	0	0	8	14	0
Repair services	0	0	0	0	0	(1)	0	0
Electrical repair services	0	0	0	0	0	(1)	0	0
Misc. repair services	0	0	0	0	0	(1)	0	0
Motion pictures	0	0	0	0	0	1	0	0
Motion picture production	0	0	0	0	0	(1)	0	0
Other services	22	0	2	25	0	17	8	3
Medical and dental laboratories	0	0	0	0	0	0	0	0
Job training and vocational rehabilitation	0	0	0	0	0	(1)	0	0
Business associations	0	0	0	0	0	3	(1)	0
Professional membership organizations	0	0	0	0	0	(1)	0	0
Civic, social and fraternal organizations	0	0	0	0	0	0	0	0
Religious organizations	0	0	0	0	0	0	0	0
Engineering and architectural services	22	0	2	25	0	7	2	(1)
Noncommercial educational, scientific and research organizations	0	0	0	0	0	7	5	3
Accounting, auditing and bookkeeping	0	0	0	0	0	(1)	0	0
Services, n.e.c.	0	0	0	0	0	(1)	(1)	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians		
	All other science	Total computer programmers	All other
Total	80	179	100
Mining	4	2	2
Metallic minerals	1	0	(1)
Iron ore	(1)	0	(1)
Copper ore	(1)	0	(1)
Lead and zinc ores	0	0	0
Ferroalloy ores, except vanadium	(1)	0	(1)
Metal mining services	(1)	0	(1)
Misc. metallic ores	(1)	0	(1)
Coal	(1)	(1)	(1)
Bituminous and lignite	(1)	(1)	(1)
Oil and gas extraction	2	2	1
Crude petroleum and natural gas	2	1	1
Oil and gas services	(1)	1	(1)
Nonmetallic mineral mining	1	0	(1)
Crushed and broken stone	(1)	0	(1)
Clay, ceramic, etc., minerals	(1)	0	(1)
Chemical and fertilizer minerals	(1)	0	(1)
Construction	0	1	3
General building contractors	0	1	1
Residential building contractors	0	(1)	(1)
Operative builders	0	0	(1)
Nonresidential building contractors	0	(1)	1
Other construction contractors	0	1	1
Highway and street construction	0	(1)	(1)
Heavy construction except highway	0	1	1
Special trade contractors	0	(1)	1
Plumbing, heating, air conditioning	0	0	(1)
Electrical work	0	0	(1)
Roofing, sheet metal work	0	0	0
Concrete work	0	0	(1)
Misc. special trade contractors	0	(1)	(1)
Manufacturing	54	55	53
Durable goods manufacturing	11	44	37
Lumber and wood products	1	(1)	(1)
Logging camps and contractors	1	0	(1)
Sawmills and planing mills	1	0	(1)
Millwork, and related products	(1)	(1)	(1)
Wood buildings and mobile homes	0	0	(1)
Misc. wood products	(1)	0	(1)
Furniture and fixtures	0	1	(1)
Household furniture	0	(1)	(1)
Office furniture	0	(1)	(1)
Public building furniture	0	0	(1)
Partitions and fixtures	0	(1)	(1)
Misc. furniture and fixtures	0	(1)	(1)
Stone, clay and glass products	2	1	1
Flat glass	0	(1)	(1)
Glass and glassware, pressed or blown	(1)	(1)	(1)
Products of purchased glass	0	0	(1)
Hydraulic cement	(1)	(1)	(1)
Structural clay products	(1)	(1)	(1)
Pottery and related products	(1)	(1)	(1)
Concrete, gypsum, and plaster products	(1)	0	(1)
Misc. nonmetallic mineral products	1	(1)	(1)

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians		
	All other science	Total computer programmers	All other
Primary metals	1	1	3
Blast furnace and primary steel products	(1)	1	1
Iron and steel foundries	0	(1)	(1)
Primary nonferrous metals	(1)	(1)	(1)
Secondary nonferrous metals	(1)	(1)	(1)
Nonferrous rolling and drawing	(1)	(1)	1
Nonferrous foundries	0	0	(1)
Misc. primary metal products	0	0	(1)
Fabricated metal products	(1)	2	3
Metal cans and shipping containers	0	0	(1)
Cutlery, handtools, and hardware	0	(1)	(1)
Plumbing and heating products	0	(1)	(1)
Fabricated structural metal products	0	1	1
Screw machine products, bolts, etc.	0	(1)	(1)
Metal forgings and stampings	0	(1)	(1)
Coating, engraving and allied services	(1)	0	(1)
Ordnance and accessories	0	(1)	1
Misc. fabricated metal products	0	1	(1)
Machinery	(1)	24	7
Engines and turbines	0	1	1
Farm and garden machinery	0	(1)	(1)
Construction and related machinery	0	1	1
Metalworking machinery	0	1	1
Special industry machinery	(1)	(1)	(1)
General industrial machinery	(1)	1	1
Office and computing machines	0	20	2
Refrigeration and service industry machinery	(1)	(1)	(1)
Misc. machinery	0	0	(1)
Electrical machinery	2	7	8
Electrical distribution equipment	0	(1)	(1)
Electrical industrial apparatus	(1)	1	1
Household appliances	(1)	(1)	(1)
Electrical lighting and wiring equipment	(1)	(1)	(1)
Radio and TV receiving equipment	0	(1)	(1)
Communications equipment	1	3	5
Electronic components and accessories	1	2	1
Misc. electrical equipment	(1)	(1)	1
Transportation equipment	2	4	9
Motor vehicles and equipment	(1)	1	1
Aircraft and parts	1	3	5
Ship and boat building and repairing	(1)	(1)	1
Railroad equipment	0	(1)	(1)
Guided missiles and space vehicles	0	0	2
Misc. transportation equipment	0	(1)	(1)
Instruments	3	4	5
Engineering and scientific instruments	(1)	2	1
Measuring and controlling instruments	(1)	1	(1)
Optical instruments and lenses	(1)	(1)	(1)
Medical instruments and supplies	2	(1)	2
Ophthalmic goods	0	(1)	(1)
Photographic equipment and supplies	1	(1)	1
Watches, clocks, and watchcases	0	(1)	(1)
Miscellaneous manufacturing	(1)	1	(1)
Musical instruments and parts	0	(1)	(1)
Toys and sporting goods	(1)	(1)	(1)
Pens, pencils, office and art supplies	(1)	(1)	(1)
Costume jewelry and notions	(1)	(1)	(1)
Misc. manufacturers	(1)	(1)	(1)

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians		
	All other science	Total computer programmers	All other
Nondurable goods	44	11	16
Food and food products	1	1	2
Meat products	0	0	(1)
Dairy products	0	0	(1)
Canned and preserved fruits and vegetables	(1)	(1)	(1)
Grain mill products	(1)	0	(1)
Bakery products	0	0	(1)
Sugar and confectionery products	0	(1)	(1)
Fats and oils	0	0	(1)
Beverages	(1)	(1)	(1)
Misc. food and kindred products	0	0	(1)
Tobacco manufactures	0	(1)	1
Cigarettes	0	(1)	1
Textiles	6	1	2
Weaving mills, cotton	(1)	(1)	(1)
Weaving mills, synthetics	(1)	0	1
Knitting mills	1	(1)	(1)
Textile finishing, except wools	1	0	(1)
Floor covering mills	3	1	1
Yarn and thread mills	(1)	0	(1)
Misc. textile goods	1	(1)	(1)
Apparel	(1)	1	1
Men's and boys' furnishings	(1)	(1)	(1)
Women's and misses' outerwear	(1)	0	(1)
Women's and children's undergarments	(1)	(1)	(1)
Misc. fabricated textiles	(1)	(1)	(1)
Paper and allied products	1	1	1
Pulp mills	0	0	(1)
Paper mills, except building paper	1	(1)	1
Paperboard mills	(1)	(1)	(1)
Misc. converted paper products	(1)	(1)	(1)
Paperboard containers and boxes	0	(1)	(1)
Printing and publishing	(1)	3	2
Newspapers	0	1	(1)
Periodicals	0	1	(1)
Books	0	(1)	(1)
Misc. publishing	0	(1)	(1)
Commercial printing	(1)	(1)	(1)
Manifold business forms	0	(1)	(1)
Greeting card publishing	0	0	1
Chemicals	27	4	5
Industrial inorganic chemicals	4	(1)	1
Plastics materials and synthetics	4	1	2
Drugs	6	1	1
Soaps, cleaners, and toilet goods	1	1	1
Paints and allied products	1	1	1
Industrial organic chemicals	8	1	1
Agricultural chemicals	1	(1)	(1)
Misc. chemical products	2	(1)	(1)
Refined petroleum products	4	1	1
Petroleum refining	4	1	1
Paving and roofing materials	(1)	(1)	(1)
Misc. petroleum and coal products	(1)	(1)	(1)
Rubber and plastic products	4	1	1
Tires and inner tubes	1	(1)	(1)
Rubber and plastic hose and belting	(1)	0	(1)
Fabricated rubber products, n.e.c.	1	(1)	(1)
Misc. plastic products	2	(1)	1
Leather products	(1)	(1)	(1)
Footwear, except rubber	0	0	(1)

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians		
	All other science	Total computer programmers	All other
Transportation, communications, public utilities	2	13	12
Transportation, except railroads	(1)	5	6
Trucking and warehousing	(1)	1	(1)
Water transportation	(1)	2	5
Air transportation	(1)	1	1
Pipelines, except natural gas	(1)	(1)	0
Transportation services	(1)	(1)	(1)
Communications	(1)	4	1
Telephone	(1)	4	1
Radio and TV broadcasting	(1)	1	(1)
Electric, gas and sanitary services	1	4	5
Wholesale and retail trade	2	19	14
Wholesale trade	2	16	7
Durable goods wholesalers	(1)	10	5
Nondurable goods wholesalers	1	6	2
Retail trade	(1)	3	7
Building materials and garden supplies	(1)	(1)	(1)
General merchandise stores	0	1	3
Food stores	(1)	(1)	(1)
Auto dealers and service stations	0	(1)	1
Furniture and home furnishing stores	0	(1)	(1)
Eating and drinking places	0	(1)	(1)
Misc. retail stores	(1)	1	2
Finance, insurance and real estate	0	28	0
Banking	0	8	0
Federal Reserve banks	0	1	0
Commercial and stock saving banks	0	7	0
Mutual savings banks	0	(1)	0
Other credit agencies	0	1	0
Personal credit institutions	0	1	0
Security and commodity brokers and dealers	0	1	0
Security brokers and dealers	0	1	0
Security and commodity services	0	(1)	0
Insurance	0	17	0
Life insurance	0	8	0
Medical services and health insurance	0	2	0
Fire, marine and casualty insurance	0	6	0
Insurance agents, brokers, and service	0	1	0
Real estate	0	1	0
Real estate operators and lessors	0	(1)	0
Subdividers and developers	0	(1)	0
Investment and holding companies	0	1	0
Holding company offices	0	1	0
Misc. investing	0	0	0

Table B-7.—Estimated employment of scientists, engineers, and technicians in private industry: August 1980—Con.

[In thousands]

Industry	Technicians		
	All other science	Total computer programmers	All other
Services	19	61	16
Hotels, motels, and lodging places	0	(1)	0
Business services	14	52	11
Advertising	0	(1)	0
Mailing, reproduction, etc. services	0	1	0
Personnel supply services	0	1	2
Computer and data processing services	0	39	1
Misc. business services	14	12	8
Repair services	0	0	(1)
Electrical repair services	0	0	(1)
Misc. repair services	0	0	(1)
Motion pictures	0	(1)	0
Motion picture production	0	(1)	0
Other services	5	9	5
Medical and dental laboratories	0	0	1
Job training and vocational rehabilitation	0	0	0
Business associations	(1)	(1)	(1)
Professional membership organizations	0	(1)	(1)
Civic, social and fraternal organizations	0	(1)	0
Religious organizations	0	1	0
Engineering and architectural services	2	3	1
Noncommercial educational, scientific and research organizations	2	1	2
Accounting, auditing and bookkeeping	0	3	(1)
Services, n.e.c.	(1)	(1)	(1)

[1] Less than 0.5.

Note: Components may not add to totals because of rounding. Industries with less than .05 thousand total SE&T employment are not shown separately.

Sources: Bureau of Labor Statistics and National Science Foundation

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Total	100.0	50.9	38.2	2.1	1.7	4.0	11.4	3.1
Mining	100.0	65.7	35.3	0.	1.2	1.5	.6	.3
Metallic minerals	100.0	66.3	34.4	0.	0.	0.	0.	.6
Iron ore	100.0	61.8	51.3	0.	0.	0.	0.	0.
Copper ore	100.0	66.5	44.3	0.	0.	0.	0.	3.5
Lead and zinc ores	100.0	64.6	39.6	0.	0.	0.	0.	0.
Ferroalloy ores, except vanadium	100.0	78.0	62.0	0.	0.	0.	0.	0.
Metal mining services	100.0	65.8	10.1	0.	0.	0.	0.	0.
Misc. metallic ores	100.0	63.8	25.0	0.	0.	0.	0.	0.
Coal	100.0	60.3	50.9	0.	0.	2.8	0.	2.8
Bituminous and lignite	100.0	60.4	51.0	0.	0.	2.8	0.	2.8
Oil and gas extraction	100.0	67.0	33.6	0.	1.3	1.5	.8	0.
Crude petroleum and natural gas	100.0	69.0	32.0	0.	1.8	1.6	1.1	0.
Oil and gas services	100.0	62.0	37.9	0	0.	1.3	0.	0.
Nonmetallic mineral mining	100.0	52.2	33.2	0.	3.5	1.6	0.	0.
Crushed and broken stone	100.0	56.3	41.7	0.	0.	10.4	0.	0.
Clay, ceramic, etc., minerals	100.0	43.3	21.7	0.	0.	0.	0.	0.
Chemical and fertilizer minerals	100.0	53.2	27.7	0.	7.1	0.	0.	0.
Construction	100.0	50.1	48.8	0.	0.	18.1	7.6	0.
General building contractors	100.0	49.8	48.6	0.	0.	24.1	2.8	0.
Residential building contractors	100.0	40.3	40.3	0.	0.	27.6	0.	0.
Operative builders	100.0	36.8	36.8	0.	0.	29.1	0.	0.
Nonresidential building contractors	100.0	54.3	52.6	0.	0.	22.4	4.1	0.
Other construction contractors	100.0	65.5	62.9	0.	0.	20.7	10.0	0.
Highway and street construction	100.0	60.1	58.7	0.	0.	44.6	0.	0.
Heavy construction except highway	100.0	65.9	63.3	0.	0.	18.6	10.9	0.
Special trade contractors	100.0	33.1	33.1	0.	0.	11.8	7.5	0.
Plumbing, heating, air conditioning	100.0	53.5	53.5	0.	0.	10.6	0.	0.
Electrical work	100.0	16.9	16.9	0.	0.	2.9	12.7	0.
Roofing, sheet metal work	100.0	80.9	80.9	0.	0.	55.3	0.	0.
Concrete work	100.0	89.0	89.0	0.	0.	60.3	0.	0.
Misc. special trade contractors	100.0	49.2	49.2	0.	0.	31.6	0.	0.
Manufacturing	100.0	55.7	45.8	3.8	2.2	.4	13.7	5.2
Durable goods manufacturing	100.0	55.5	50.3	4.8	.4	.3	16.9	5.8
Lumber and wood products	100.0	43.0	25.9	0.	0.	0.	0.	6.7
Logging camps and contractors	100.0	43.5	17.4	0.	0.	0.	0.	0.
Sawmills and planing mills	100.0	63.5	23.1	0.	0.	0.	0.	0.
Millwork, and related products	100.0	36.1	22.9	0.	0.	0.	0.	9.3
Wood buildings and mobile homes	100.0	21.1	21.1	0.	0.	0.	0.	7.5
Misc. wood products	100.0	55.7	52.5	0.	0.	0.	0.	16.4
Furniture and fixtures	100.0	42.2	37.8	0.	0.	0.	0.	22.6
Household furniture	100.0	49.4	42.3	0.	0.	0.	0.	28.3
Office furniture	100.0	53.8	48.8	0.	0.	0.	0.	23.8
Public building furniture	100.0	35.6	35.6	0.	0.	0.	0.	17.8
Partitions and fixtures	100.0	24.2	24.2	0.	0.	0.	0.	14.5
Misc. furniture and fixtures	100.0	40.4	34.6	0.	0.	0.	0.	19.2
Stone, clay and glass products	100.0	48.5	37.9	0.	3.7	1.0	3.1	5.9
Flat glass	100.0	55.7	47.1	0.	0.	0.	4.3	5.7
Glass and glassware, pressed or blown	100.0	46.9	38.5	0.	2.7	0.	4.6	7.3
Products of purchased glass	100.0	52.3	47.7	0.	0.	0.	0.	10.8
Hydraulic cement	100.0	57.8	25.6	0.	2.8	3.3	3.9	3.3
Structural clay products	100.0	57.5	50.6	0.	0.	4.6	8.0	0.
Pottery and related products	100.0	49.6	49.6	0.	0.	6.7	7.6	0.
Concrete, gypsum, and plaster products	100.0	33.7	29.6	0.	7.4	0.	0.	0.
Misc. nonmetallic mineral products	100.0	51.7	40.2	0.	5.0	0.	2.3	9.8

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Primary metals	100.0	54.9	45.7	0.	.9	1.5	5.5	7.5
Blast furnace and primary steel products	100.0	52.1	42.2	0.	0.	3.0	3.8	8.2
Iron and steel foundries	100.0	57.4	51.6	0.	0.	0.	0.	10.7
Primary nonferrous metals	100.0	56.8	45.0	0.	3.1	1.8	11.6	0.
Secondary nonferrous metals	100.0	59.8	39.2	0.	3.9	0.	2.0	5.9
Nonferrous rolling and drawing	100.0	56.3	49.2	0.	2.1	0.	10.8	7.8
Nonferrous foundries	100.0	55.9	54.1	0.	0.	0.	0.	10.6
Misc. primary metal products	100.0	62.7	38.7	0.	0.	0.	0.	0.
Fabricated metal products	100.0	48.1	43.7	0.	.4	1.9	2.3	7.2
Metal cans and shipping containers	100.0	61.9	55.6	0.	0.	0.	0.	10.3
Cutlery, handtools, and hardware	100.0	60.3	53.0	0.	0.	0.	0.	12.9
Plumbing and heating products	100.0	53.6	51.1	0.	0.	0.	1.9	7.4
Fabricated structural metal products	100.0	40.6	37.3	0.	0.	3.8	1.3	3.7
Screw machine products, bolts, etc.	100.0	56.4	52.7	0.	0.	0.	0.	10.7
Metal forgings and stampings	100.0	54.8	52.1	0.	0.	0.	0.	14.8
Coating, engraving and allied services	100.0	61.9	40.7	0.	5.3	0.	0.	0.
Ordnance and accessories	100.0	54.8	47.6	0.	3.3	1.4	11.1	11.5
Misc. fabricated metal products	100.0	50.1	46.2	0.	0.	0.	3.1	8.0
Machinery	100.0	47.2	43.0	0.	.1	.4	14.4	6.7
Engines and turbines	100.0	59.8	53.0	0.	0.	0.	4.2	7.2
Farm and garden machinery	100.0	47.3	42.9	0.	0.	0.	0.	7.3
Construction and related machinery	100.0	47.7	44.6	0.	0.	2.8	4.0	7.6
Metalworking machinery	100.0	49.4	48.0	0.	0.	0.	6.7	7.9
Special industry machinery	100.0	40.6	39.7	0.	1.2	0.	6.6	6.1
General industrial machinery	100.0	50.0	47.6	0.	0.	0.	5.1	8.1
Office and computing machines	100.0	45.3	39.5	0.	0.	0.	25.4	5.0
Refrigeration and service industry machinery	100.0	45.0	41.9	0.	0.	0.	4.4	8.8
Misc. machinery	100.0	50.8	50.3	0.	0.	0.	4.3	17.9
Electrical machinery	100.0	57.7	52.8	0.	.6	0.	32.7	4.2
Electrical distribution equipment	100.0	47.7	45.6	0.	0.	0.	24.6	6.8
Electrical industrial apparatus	100.0	49.2	46.4	0.	0.	0.	25.5	6.2
Household appliances	100.0	54.5	48.8	0.	0.	0.	7.3	10.9
Electrical lighting and wiring equipment	100.0	56.8	51.7	0.	0.	0.	16.6	10.2
Radio and TV receiving equipment	100.0	54.4	49.9	0.	0.	0.	24.0	4.7
Communications equipment	100.0	64.4	57.8	0.	.4	0.	38.5	2.8
Electronic components and accessories	100.0	49.2	46.7	0.	1.3	0.	32.3	4.2
Misc. electrical equipment	100.0	56.0	52.0	0.	2.2	0.	14.8	8.8
Transportation equipment	100.0	69.1	63.8	22.6	0.	0.	5.2	5.4
Motor vehicles and equipment	100.0	64.5	55.8	0.	0.	0.	1.5	12.3
Aircraft and parts	100.0	68.9	62.4	25.0	0.	0.	4.4	4.8
Ship and boat building and repairing	100.0	43.0	42.1	0.	0.	0.	4.4	3.6
Railroad equipment	100.0	64.6	61.4	0.	0.	0.	0.	8.5
Guided missiles and space vehicles	100.0	78.8	77.4	37.6	0.	0.	10.3	2.6
Misc. transportation equipment	100.0	46.4	46.4	0.	0.	0.	0.	14.2
Instruments	100.0	50.7	45.6	0.	.7	0.	23.5	3.1
Engineering and scientific instruments	100.0	51.0	47.6	0.	.6	0.	28.6	1.1
Measuring and controlling instruments	100.0	52.2	48.7	0.	1.1	0.	28.3	4.1
Optical instruments and lenses	100.0	55.3	49.3	0.	0.	0.	22.2	1.0
Medical instruments and supplies	100.0	39.2	29.5	0.	1.0	0.	8.1	4.7
Ophthalmic goods	100.0	51.5	38.2	0.	0.	0.	0.	11.8
Photographic equipment and supplies	100.0	53.4	45.6	0.	0.	0.	18.3	2.5
Watches, clocks, and watchcases	100.0	58.4	58.4	0.	0.	0.	11.7	15.6
Miscellaneous manufacturing	100.0	44.6	38.5	0.	0.	0.	0.	14.7
Musical instruments and parts	100.0	37.1	37.1	0.	0.	0.	0.	12.4
Toys and sporting goods	100.0	55.7	46.4	0.	0.	0.	0.	18.3
Pens, pencils, office and art supplies	100.0	53.2	38.7	0.	0.	0.	0.	11.3
Costume jewelry and notions	100.0	53.5	43.4	0.	0.	0.	0.	14.1
Misc. manufacturers	100.0	32.6	30.4	0.	0.	0.	0.	11.7

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Nondurable goods	100.0	56.4	28.8	0.	9.2	.7	1.6	3.9
Food and food products	100.0	40.9	16.8	0.	0.	0.	0.	.4
Meat products	100.0	22.2	17.5	0.	0.	0.	0.	0.
Dairy products	100.0	7.3	6.1	0.	0.	0.	0.	0.
Canned and preserved fruits and vegetables	100.0	23.1	14.7	0.	0.	0.	0.	0.
Grain mill products	100.0	52.9	9.6	0.	0.	0.	0.	0.
Bakery products	100.0	12.2	12.2	0.	0.	0.	0.	0.
Sugar and confectionery products	100.0	47.3	14.4	0.	0.	0.	0.	3.0
Fats and oils	100.0	82.1	5.4	0.	0.	0.	0.	0.
Beverages	100.0	41.6	25.5	0.	0.	0.	0.	0.
Misc. food and kindred products	100.0	59.2	34.1	0.	0.	0.	0.	0.
Tobacco manufactures	100.0	27.7	22.9	0.	0.	0.	0.	.5
Cigarettes	100.0	26.8	21.1	0.	0.	0.	0.	0.
Textiles	100.0	31.9	22.6	0.	0.	0.	0.	11.7
Weaving mills, cotton	100.0	48.5	41.8	0.	0.	0.	0.	29.9
Weaving mills, synthetics	100.0	43.9	30.1	0.	0.	0.	0.	16.4
Knitting mills	100.0	43.1	29.9	0.	0.	0.	0.	19.0
Textile finishing, except wools	100.0	30.5	17.8	0.	0.	0.	0.	8.0
Floor covering mills	100.0	5.5	3.4	0.	0.	0.	0.	2.3
Yarn and thread mills	100.0	48.2	42.7	0.	0.	0.	0.	23.6
Misc. textile goods	100.0	45.6	30.1	0.	0.	0.	0.	6.6
Apparel	100.0	59.7	59.7	0.	0.	0.	0.	44.5
Men's and boys' furnishings	100.0	57.3	57.3	0.	0.	0.	0.	47.1
Women's and misses' outerwear	100.0	65.5	65.5	0.	0.	0.	0.	56.3
Women's and children's undergarments	100.0	51.9	51.9	0.	0.	0.	0.	34.6
Misc. fabricated textiles	100.0	62.1	62.1	0.	0.	0.	0.	34.0
Paper and allied products	100.0	62.0	45.8	0.	8.1	0.	4.4	8.8
Pulp mills	100.0	77.4	44.0	0.	16.7	0.	4.8	0.
Paper mills, except building paper	100.0	61.1	44.1	0.	12.0	0.	5.2	5.6
Paperboard mills	100.0	66.0	52.4	0.	13.6	0.	6.3	4.7
Misc. converted paper products	100.0	58.6	39.7	0.	0.	0.	3.4	11.5
Paperboard containers and boxes	100.0	60.3	58.9	0.	0.	0.	0.	24.5
Printing and publishing	100.0	38.6	16.4	0.	0.	0.	0.	1.8
Newspapers	100.0	44.1	10.0	0.	0.	0.	0.	0.
Periodicals	100.0	39.3	7.4	0.	0.	0.	0.	0.
Books	100.0	38.7	13.5	0.	0.	0.	0.	7.2
Misc. publishing	100.0	33.3	11.9	0.	0.	0.	0.	0.
Commercial printing	100.0	48.8	36.4	0.	0.	0.	0.	0.
Manifold business forms	100.0	46.2	32.7	0.	0.	0.	0.	9.6
Greeting card publishing	100.0	11.7	11.7	0.	0.	0.	0.	0.
Chemicals	100.0	61.7	25.7	0.	12.4	.5	1.9	1.7
Industrial inorganic chemicals	100.0	60.7	34.3	0.	18.6	.8	2.9	1.5
Plastics materials and synthetics	100.0	57.9	38.9	0.	18.1	0.	3.1	2.7
Drugs	100.0	62.3	8.7	0.	2.1	0.	.5	1.4
Soaps, cleaners, and toilet goods	100.0	66.4	16.5	0.	5.2	0.	0.	2.8
Paints and allied products	100.0	66.9	8.6	0.	4.0	0.	0.	1.7
Industrial organic chemicals	100.0	62.5	33.6	0.	18.3	1.5	2.6	1.3
Agricultural chemicals	100.0	61.5	32.8	0.	17.9	0.	1.7	1.9
Misc. chemical products	100.0	60.9	23.4	0.	10.1	.8	1.5	1.5
Refined petroleum products	100.0	67.0	41.5	0.	14.9	4.0	2.5	1.5
Petroleum refining	100.0	67.1	42.1	0.	15.5	3.8	2.5	1.5
Paving and roofing materials	100.0	62.1	37.9	0.	0.	15.2	4.5	0.
Misc. petroleum and coal products	100.0	69.1	23.5	0.	8.8	0.	0.	2.9
Rubber and plastic products	100.0	49.0	39.5	0.	4.9	0.	1.1	8.3
Tires and inner tubes	100.0	44.9	36.1	0.	5.3	0.	3.1	7.3
Rubber and plastic hose and belting	100.0	51.6	42.9	0.	4.0	0.	0.	7.1
Fabricated rubber products, n.e.c.	100.0	51.8	34.6	0.	3.4	0.	1.7	8.4
Misc. plastic products	100.0	49.6	42.6	0.	5.3	0.	0.	8.7
Leather products	100.0	60.4	49.3	0.	0.	0.	0.	10.6
Footwear, except rubber	100.0	61.2	61.2	0.	0.	0.	0.	0.

Table B–8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Transportation, communications, public utilities	100.0	48.7	41.8	.7	.4	1.8	23.7	2.4
Transportation, except railroads	100.0	32.7	21.6	5.1	0.	.2	2.5	.9
Trucking and warehousing	100.0	50.0	22.9	0.	0.	0.	0.	0.
Water transportation	100.0	15.8	13.2	0.	0.	0.	0.	0.
Air transportation	100.0	48.5	26.8	17.7	0.	0.	3.0	3.2
Pipelines, except natural gas	100.0	46.8	44.3	0.	0.	2.0	15.8	0.
Transportation services	100.0	40.9	22.2	0.	0.	0.	0.	0.
Communications	100.0	56.9	50.8	0.	0.	1.0	35.9	3.2
Telephone	100.0	53.0	46.2	0.	0.	1.2	29.2	3.9
Radio and TV broadcasting	100.0	75.7	72.6	0.	0.	0.	68.5	0.
Electric, gas and sanitary services	100.0	45.9	39.5	0.	1.0	2.9	18.9	2.0
Wholesale and retail trade	100.0	35.9	21.9	0.	1.4	8.4	9.1	0.
Wholesale trade	100.0	37.3	23.1	0.	1.5	9.0	9.8	0.
Durable goods wholesalers	100.0	35.8	22.9	0.	.8	10.2	10.7	0.
Nondurable goods wholesalers	100.0	49.3	25.1	0.	7.2	0.	2.4	0.
Retail trade	100.0	18.1	6.6	0.	0.	0.	.5	0.
Building materials and garden supplies	100.0	8.4	3.5	0.	0.	0.	0.	0.
General merchandise stores	100.0	21.8	8.5	0.	0.	0.	.1	0.
Food stores	100.0	45.5	11.5	0.	0.	0.	0.	0.
Auto dealers and service stations	100.0	8.1	5.0	0.	0.	0.	0.	0.
Furniture and home furnishing stores	100.0	6.5	5.7	0.	0.	0.	5.3	0.
Eating and drinking places	100.0	19.7	6.2	0.	0.	0.	0.	0.
Misc. retail stores	100.0	13.2	3.3	0.	0.	0.	0.	0.
Finance, insurance and real estate	100.0	55.8	9.5	0.	0.	0.	0.	0.
Banking	100.0	53.6	2.8	0.	0.	0.	0.	0.
Federal Reserve banks	100.0	66.4	0.	0.	0.	0.	0.	0.
Commercial and stock saving banks	100.0	52.4	3.0	0.	0.	0.	0.	0.
Mutual savings banks	100.0	35.3	0.	0.	0.	0.	0.	0.
Other credit agencies	100.0	42.7	0.	0.	0.	0.	0.	0.
Personal credit institutions	100.0	33.7	0.	0.	0.	0.	0.	0.
Security and commodity brokers and dealers	100.0	66.5	0.	0.	0.	0.	0.	0.
Security brokers and dealers	100.0	60.4	0.	0.	0.	0.	0.	0.
Security and commodity services	100.0	73.1	0.	0.	0.	0.	0.	0.
Insurance	100.0	57.5	9.0	0.	0.	0.	0.	0.
Life insurance	100.0	54.6	2.9	0.	0.	0.	0.	0.
Medical services and health insurance	100.0	59.2	1.5	0.	0.	0.	0.	0.
Fire, marine and casualty insurance	100.0	58.0	18.1	0.	0.	0.	0.	0.
Insurance agents, brokers, and services	100.0	68.2	18.8	0.	0.	0.	0.	0.
Real estate	100.0	46.9	41.0	0.	0.	0.	0.	0.
Real estate operators and lessors	100.0	54.8	48.8	0.	0.	0.	0.	0.
Subdividers and developers	100.0	43.6	34.5	0.	0.	0.	0.	0.
Investment and holding companies	100.0	70.4	19.1	0.	0.	0.	0.	0.
Holding company offices	100.0	55.9	18.5	0.	0.	0.	0.	0.
Misc. investing	100.0	92.1	27.0	0.	0.	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Services	100.0	44.9	29.1	.9	1.5	8.6	7.3	1.2
Hotels, motels, and lodging places	100.0	48.9	48.9	0.	0.	0.	0.	0.
Business services	100.0	48.6	23.7	1.6	1.9	1.2	9.3	1.5
Advertising	100.0	64.7	25.5	0.	0.	0.	0.	0.
Mailing, reproduction, etc. services	100.0	21.7	0.	0.	0.	0.	0.	0.
Personnel supply services	100.0	26.3	21.2	0.	0.	0.	13.2	0.
Computer and data processing services	100.0	38.3	6.5	0.	0.	0.	5.2	.2
Misc. business services	100.0	54.7	31.6	2.4	2.9	1.9	10.9	2.2
Repair services	100.0	1.6	1.6	0.	0.	0.	1.0	0.
Electrical repair services	100.0	.8	.8	0.	0.	0.	.8	0.
Misc. repair services	100.0	3.5	3.5	0.	0.	0.	1.6	0.
Motion pictures	100.0	17.4	13.2	0.	0.	0.	0.	0.
Motion picture production	100.0	19.1	13.4	0.	0.	0.	0.	0.
Other services	100.0	43.9	34.5	.4	1.3	15.0	6.1	1.0
Medical and dental laboratories	100.0	50.5	0.	0.	0.	0.	0.	0.
Job training and vocational rehabilitation	100.0	77.3	13.6	0.	0.	0.	0.	0.
Business associations	100.0	28.3	6.3	0.	0.	1.8	0.	0.
Professional membership organizations	100.0	39.4	11.3	0.	0.	0.	0.	0.
Civic, social and fraternal organizations	100.0	94.0	0.	0.	0.	0.	0.	0.
Religious organizations	100.0	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	100.0	42.4	39.5	.5	1.4	17.5	7.3	1.2
Noncommercial educational, scientific and research organizations	100.0	50.0	10.8	0.	1.2	3.2	0.	.1
Accounting, auditing and bookkeeping	100.0	56.4	2.1	0.	0.	0.	0.	0.
Services, n.e.c.	100.0	76.7	9.6	0.	0.	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Total	6.9	.3	.1	.6	.3	7.7	12.7	4.3
Mining	1.5	.2	3.6	16.8	2.1	7.5	30.5	25.5
Metallic minerals	1.6	2.4	13.2	0.	1.8	14.8	31.9	31.4
Iron ore	9.2	0.	18.4	0.	0.	23.7	10.5	10.5
Copper ore	4.3	7.4	21.7	0.	3.5	3.9	22.2	19.1
Lead and zinc ores	0.	0.	16.7	0.	0.	22.9	25.0	25.0
Ferroalloy ores, except vanadium	0.	0.	20.0	0.	0.	42.0	16.0	16.0
Metal mining services	0.	0.	0.	0.	0.	10.1	55.7	55.7
Misc. metallic ores	0.	3.2	11.2	0.	3.2	7.4	38.8	38.8
Coal	1.6	0.	22.3	0.	13.6	7.9	9.3	5.7
Bituminous and lignite	1.6	0.	22.4	0.	13.6	7.9	9.4	5.7
Oil and gas extraction	1.5	0.	0.	21.4	.9	6.3	33.4	27.6
Crude petroleum and natural gas	1.2	0.	0.	21.6	.7	3.9	37.0	29.8
Oil and gas services	2.1	0.	0.	20.6	1.3	12.6	24.0	22.0
Nonmetallic mineral mining	2.5	0.	10.3	0.	0.	15.4	19.0	19.0
Crushed and broken stone	0.	0.	14.6	0.	0.	16.7	14.6	14.6
Clay, ceramic, etc., minerals	0.	0.	0.	0.	0.	21.7	21.7	21.7
Chemical and fertilizer minerals	5.0	0.	7.8	0.	0.	7.8	25.5	25.5
Construction	12.8	0.	0.	0.	1.5	8.7	1.3	0.
General building contractors	9.3	0.	0.	0.	2.2	10.2	1.2	0.
Residential building contractors	5.9	0.	0.	0.	1.2	5.6	0.	0.
Operative builders	0.	0.	0.	0.	0.	7.7	0.	0.
Nonresidential building contractors	11.2	0.	0.	0.	2.7	12.1	1.7	0.
Other construction contractors	15.0	0.	0.	0.	2.5	14.7	2.5	0.
Highway and street construction	0.	0.	0.	0.	6.0	8.2	1.4	0.
Heavy construction except highway	16.3	0.	0.	0.	2.2	15.2	2.7	0.
Special trade contractors	12.4	0.	0.	0.	0.	1.3	0.	0.
Plumbing, heating, air conditioning	41.2	0.	0.	0.	0.	1.8	0.	0.
Electrical work	1.1	0.	0.	0.	0.	.2	0.	0.
Roofing, sheet metal work	25.5	0.	0.	0.	0.	0.	0.	0.
Concrete work	21.9	0.	0.	0.	0.	6.8	0.	0.
Misc. special trade contractors	12.5	0.	0.	0.	0.	5.1	0.	0.
Manufacturing	9.1	.5	0.	.1	.2	10.6	9.9	5.0
Durable goods manufacturing	9.8	.6	0.	0.	.1	11.9	5.1	1.4
Lumber and wood products	4.5	0.	0.	0.	0.	14.7	17.1	.4
Logging camps and contractors	0.	0.	0.	0.	0.	17.4	26.1	0.
Sawmills and planing mills	0.	0.	0.	0.	0.	23.1	40.4	0.
Millwork, and related products	6.3	0.	0.	0.	0.	7.3	13.2	0.
Wood buildings and mobile homes	0.	0.	0.	0.	0.	13.5	0.	0.
Misc. wood products	19.7	0.	0.	0.	0.	16.4	3.3	3.3
Furniture and fixtures	8.2	0.	0.	0.	0.	6.9	4.4	0.
Household furniture	7.2	0.	0.	0.	0.	6.8	7.2	0.
Office furniture	15.0	0.	0.	0.	0.	10.0	5.0	0.
Public building furniture	11.1	0.	0.	0.	0.	6.7	0.	0.
Partitions and fixtures	4.8	0.	0.	0.	0.	4.8	0.	0.
Misc. furniture and fixtures	7.7	0.	0.	0.	0.	7.7	5.8	0.
Stone, clay and glass products	8.2	0.	0.	0.	0.	16.0	10.6	8.6
Flat glass	8.6	0.	0.	0.	0.	28.6	8.6	5.7
Glass and glassware, pressed or blown	14.4	0.	0.	0.	0.	9.5	8.4	6.0
Products of purchased glass	13.8	0.	0.	0.	0.	23.1	4.6	4.6
Hydraulic cement	4.4	0.	0.	0.	0.	7.8	32.2	30.0
Structural clay products	0.	0.	0.	0.	0.	37.9	6.9	3.4
Pottery and related products	0.	0.	0.	0.	0.	35.3	0.	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	0.	22.2	4.1	4.1
Misc. nonmetallic mineral products	11.5	0.	0.	0.	0.	11.6	11.5	8.6

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Primary metals	10.5	9.2	0.	0.	1.8	8.8	9.2	5.3
Blast furnace and primary steel products	8.1	9.6	0.	0.	1.9	7.4	9.9	5.1
Iron and steel foundries	9.3	13.5	0.	0.	2.7	15.4	5.8	2.7
Primary nonferrous metals	13.9	6.2	0.	0.	1.5	6.9	11.8	6.7
Secondary nonferrous metals	4.9	15.7	0.	0.	0.	6.9	20.6	20.6
Nonferrous rolling and drawing	14.1	5.6	0.	0.	1.3	7.5	7.1	3.4
Nonferrous foundries	15.3	8.2	0.	0.	2.9	17.1	1.8	1.8
Misc. primary metal products	6.7	21.3	0.	0.	0.	10.7	24.0	24.0
Fabricated metal products	21.7	.4	0.	0.	0.	9.8	4.4	2.2
Metal cans and shipping containers	37.3	0.	0.	0.	0.	7.9	6.3	6.3
Cutlery, handtools, and hardware	26.5	0.	0.	0.	0.	13.6	7.3	3.0
Plumbing and heating products	31.3	0.	0.	0.	0.	10.5	2.5	0.
Fabricated structural metal products	19.9	0.	0.	0.	0.	8.6	3.3	1.4
Screw machine products, bolts, etc.	30.0	2.9	0.	0.	0.	9.1	3.7	0.
Metal forgings and stampings	19.0	3.4	0.	0.	0.	14.8	2.8	1.4
Coating, engraving and allied services	25.7	0.	0.	0.	0.	9.7	21.2	21.2
Ordnance and accessories	14.3	0.	0.	0.	0.	5.9	7.2	5.4
Misc. fabricated metal products	23.5	0.	0.	0.	0.	11.5	4.0	.9
Machinery	13.7	.4	0.	0.	0.	7.4	4.2	.5
Engines and turbines	27.2	2.7	0.	0.	0.	11.7	6.8	4.3
Farm and garden machinery	26.7	0.	0.	0.	0.	8.9	4.4	0.
Construction and related machinery	21.9	.7	0.	0.	0.	7.7	3.1	.5
Metalworking machinery	27.0	0.	0.	0.	0.	6.4	1.3	.2
Special industry machinery	19.6	0.	0.	0.	0.	6.2	.8	.8
General industrial machinery	22.3	1.5	0.	0.	0.	10.6	2.4	.4
Office and computing machines	3.2	0.	0.	0.	0.	5.9	5.8	.2
Refrigeration and service industry machinery	13.8	0.	0.	0.	0.	14.9	3.1	.7
Misc. machinery	23.3	0.	0.	0.	0.	4.9	.5	.5
Electrical machinery	5.8	0.	0.	0.	0.	9.4	4.9	.9
Electrical distribution equipment	6.0	0.	0.	0.	0.	8.2	2.1	.3
Electrical industrial apparatus	9.3	0.	0.	0.	0.	5.4	2.8	.4
Household appliances	21.0	0.	0.	0.	0.	9.6	5.6	.7
Electrical lighting and wiring equipment	11.8	0.	0.	0.	0.	13.1	5.0	1.2
Radio and TV receiving equipment	7.3	0.	0.	0.	0.	13.9	4.4	0.
Communications equipment	5.0	0.	0.	0.	0.	11.1	6.6	1.0
Electronic components and accessories	3.8	0.	0.	0.	0.	5.1	2.5	.8
Misc. electrical equipment	8.7	0.	0.	0.	0.	17.5	4.0	2.0
Transportation equipment	8.0	.6	0.	0.	0.	21.9	5.4	1.0
Motor vehicles and equipment	12.4	0.	0.	0.	0.	29.7	8.7	1.6
Aircraft and parts	9.4	1.1	0.	0.	0.	17.7	6.5	1.2
Ship and boat building and repairing	12.4	0.	0.	0.	0.	21.8	.9	.9
Railroad equipment	14.8	0.	0.	0.	0.	38.1	3.2	0.
Guided missiles and space vehicles	0.	0.	0.	0.	0.	26.8	1.4	.3
Misc. transportation equipment	15.3	0.	0.	0.	0.	16.9	0.	0.
Instruments	6.3	0.	0.	0.	0.	12.0	5.2	3.0
Engineering and scientific instruments	6.8	0.	0.	0.	0.	10.5	3.5	2.3
Measuring and controlling instruments	6.2	0.	0.	0.	0.	8.9	3.5	.8
Optical instruments and lenses	10.8	0.	0.	0.	0.	15.3	6.0	4.4
Medical instruments and supplies	8.9	0.	0.	0.	0.	6.8	9.7	4.2
Ophthalmic goods	16.2	0.	0.	0.	0.	10.3	13.2	5.9
Photographic equipment and supplies	0.	0.	0.	0.	0.	24.8	7.7	7.7
Watches, clocks, and watchcases	19.5	0.	0.	0.	0.	11.7	0.	0.
Miscellaneous manufacturing	11.9	0.	0.	0.	0.	11.9	6.1	3.0
Musical instruments and parts	10.1	0.	0.	0.	0.	14.6	0.	0.
Toys and sporting goods	14.0	0.	0.	0.	0.	14.0	9.4	2.6
Pens, pencils, office and art supplies	16.1	0.	0.	0.	0.	11.3	14.5	9.7
Costume jewelry and notions	20.2	0.	0.	0.	0.	9.1	10.1	4.0
Misc. manufacturers	8.4	0.	0.	0.	0.	10.3	2.2	2.2

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Nondurable goods	6.5	0.	0.	.3	.6	6.1	27.6	18.2
Food and food products	2.2	0.	0.	0.	0.	14.1	24.2	21.7
Meat products	0.	0.	0.	0.	0.	17.5	4.6	4.6
Dairy products	0.	0.	0.	0.	0.	6.1	1.2	1.2
Canned and preserved fruits and vegetables	0.	0.	0.	0.	0.	14.7	8.4	3.3
Grain mill products	0.	0.	0.	0.	0.	9.6	43.4	40.1
Bakery products	0.	0.	0.	0.	0.	12.2	0.	0.
Sugar and confectionery products	3.7	0.	0.	0.	0.	7.7	32.9	27.9
Fats and oils	0.	0.	0.	0.	0.	5.4	76.8	76.8
Beverages	7.7	0.	0.	0.	0.	17.8	16.1	13.0
Misc. food and kindred products	5.2	0.	0.	0.	0.	28.8	25.1	25.1
Tobacco manufactures	2.4	0.	0.	0.	0.	20.1	4.7	0.
Cigarettes	0.	0.	0.	0.	0.	21.1	5.6	0.
Textiles	5.9	0.	0.	0.	0.	5.1	9.2	5.8
Weaving mills, cotton	8.2	0.	0.	0.	0.	3.7	6.7	6.7
Weaving mills, synthetics	5.9	0.	0.	0.	0.	7.8	13.8	5.2
Knitting mills	7.1	0.	0.	0.	0.	3.8	13.3	5.7
Textile finishing, except wools	5.2	0.	0.	0.	0.	4.7	12.7	9.9
Floor covering mills	1.1	0.	0.	0.	0.	0.	2.1	1.1
Yarn and thread mills	15.5	0.	0.	0.	0.	3.6	5.5	5.5
Misc. textile goods	8.1	0.	0.	0.	0.	15.4	15.4	12.4
Apparel	3.1	0.	0.	0.	0.	12.1	0.	0.
Men's and boys' furnishings	0.	0.	0.	0.	0.	10.2	0.	0.
Women's and misses' outerwear	0.	0.	0.	0.	0.	9.2	0.	0.
Women's and children's undergarments	0.	0.	0.	0.	0.	17.3	0.	0.
Misc. fabricated textiles	13.6	0.	0.	0.	0.	14.6	0.	0.
Paper and allied products	16.9	0.	0.	0.	0.	7.6	16.2	10.9
Pulp mills	11.9	0.	0.	0.	0.	10.7	33.3	33.3
Paper mills, except building paper	15.7	0.	0.	0.	0.	5.6	17.0	9.6
Paperboard mills	22.0	0.	0.	0.	0.	5.3	13.6	11.5
Misc. converted paper products	16.3	0.	0.	0.	0.	8.5	18.9	11.8
Paperboard containers and boxes	19.9	0.	0.	0.	0.	14.6	1.3	1.3
Printing and publishing	1.0	0.	0.	0.	0.	13.6	22.2	1.1
Newspapers	0.	0.	0.	0.	0.	10.0	34.1	0.
Periodicals	0.	0.	0.	0.	0.	7.4	31.9	0.
Books	0.	0.	0.	0.	0.	6.3	25.2	0.
Misc. publishing	0.	0.	0.	0.	0.	11.9	21.4	0.
Commercial printing	0.	0.	0.	0.	0.	36.4	12.4	7.8
Manifold business forms	7.7	0.	0.	0.	0.	15.4	13.5	0.
Greeting card publishing	0.	0.	0.	0.	0.	11.7	0.	0.
Chemicals	5.2	0.	0.	0.	.8	3.2	35.9	23.6
Industrial inorganic chemicals	6.4	0.	0.	0.	1.3	2.8	26.4	22.2
Plastics materials and synthetics	8.5	0.	0.	0.	1.0	5.6	18.9	14.6
Drugs	1.8	0.	0.	0.	0.	2.8	53.6	19.7
Soaps, cleaners, and toilet goods	3.6	0.	0.	0.	0.	4.9	49.9	42.8
Paints and allied products	1.6	0.	0.	0.	0.	1.4	58.3	57.4
Industrial organic chemicals	6.7	0.	0.	0.	1.0	2.2	28.9	21.7
Agricultural chemicals	4.8	0.	0.	0.	2.1	4.6	28.7	22.5
Misc. chemical products	5.2	0.	0.	0.	1.4	2.9	37.5	34.2
Refined petroleum products	7.6	0.	0.	3.3	1.6	6.0	25.5	16.9
Petroleum refining	7.6	0.	0.	3.5	1.7	6.0	24.9	15.9
Paving and roofing materials	10.6	0.	0.	0.	0.	7.6	24.2	24.2
Misc. petroleum and coal products	5.9	0.	0.	0.	0.	5.9	45.6	44.1
Rubber and plastic products	15.1	0.	0.	0.	0.	10.2	9.5	7.7
Tires and inner tubes	14.1	0.	0.	0.	0.	6.4	8.7	4.3
Rubber and plastic hose and belting	5.6	0.	0.	0.	0.	26.2	8.7	8.7
Fabricated rubber products, n.e.c.	16.5	0.	0.	0.	0.	4.7	17.2	15.2
Misc. plastic products	16.2	0.	0.	0.	0.	12.4	7.0	6.4
Leather products	26.4	0.	0.	0.	0.	12.3	11.1	11.1
Footwear, except rubber	49.0	0.	0.	0.	0.	12.2	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Transportation, communications, public utilities	3.9	0.	0.	0.	0.	8.9	6.9	1.1
Transportation, except railroads	3.5	0.	0.	0.	0.	9.3	11.2	1.8
Trucking and warehousing	0.	0.	0.	0.	0.	22.9	27.0	0.
Water transportation	3.1	0.	0.	0.	0.	10.1	2.6	.3
Air transportation	0.	0.	0.	0.	0.	2.9	21.7	5.0
Pipelines, except natural gas	20.3	0.	0.	0.	.3	5.9	2.5	2.0
Transportation services	0.	0.	0.	0.	0.	22.2	18.6	0.
Communication	1.0	0.	0.	0.	0.	9.6	6.1	0.
Telephone	1.2	0.	0.	0.	0.	10.8	6.7	0.
Radio and TV broadcasting	0.	0.	0.	0.	0.	4.1	3.1	0.
Electric, gas and sanitary services	6.6	0.	0.	0.	0.	8.1	6.4	1.9
Wholesale and retail trade	1.0	0.	0.	0.	0.	2.0	14.0	.5
Wholesale trade	1.1	0.	0.	0.	0.	1.7	14.2	.6
Durable goods wholesalers	0.	0.	0.	0.	0.	1.1	12.9	.1
Nondurable goods wholesalers	9.1	0.	0.	0.	0.	6.3	24.3	4.4
Retail trade	.5	0.	0.	0.	0.	5.6	11.5	.1
Building materials and garden supplies	0.	0.	0.	0.	0.	3.5	4.9	0.
General merchandise stores	1.2	0.	0.	0.	0.	7.1	13.3	0.
Food stores	0.	0.	0.	0.	0.	11.5	34.0	.6
Auto dealers and service stations	0.	0.	0.	0.	0.	5.0	3.1	.3
Furniture and home furnishing stores	0.	0.	0.	0.	0.	.5	.8	0.
Eating and drinking places	0.	0.	0.	0.	0.	6.2	13.5	0.
Misc. retail stores	0.	0.	0.	0.	0.	3.3	10.0	.1
Finance, insurance and real estate	0.	0.	0.	0.	0.	9.5	46.3	0.
Banking	0.	0.	0.	0.	0.	2.8	50.8	0.
Federal Reserve banks	0.	0.	0.	0.	0.	0.	66.4	0.
Commercial and stock saving banks	0.	0.	0.	0.	0.	3.0	49.3	0.
Mutual savings banks	0.	0.	0.	0.	0.	0.	35.3	0.
Other credit agencies	0.	0.	0.	0.	0.	0.	42.7	0.
Personal credit institutions	0.	0.	0.	0.	0.	0.	33.7	0.
Security and commodity brokers and dealers	0.	0.	0.	0.	0.	0.	66.5	0.
Security brokers and dealers	0.	0.	0.	0.	0.	0.	60.4	0.
Security and commodity services	0.	0.	0.	0.	0.	0.	73.1	0.
Insurance	0.	0.	0.	0.	0.	9.0	48.4	0.
Life insurance	0.	0.	0.	0.	0.	2.9	51.7	0.
Medical services and health insurance	0.	0.	0.	0.	0.	1.5	57.7	0.
Fire, marine and casualty insurance	0.	0.	0.	0.	0.	18.1	39.8	0.
Insurance agents, brokers, and service	0.	0.	0.	0.	0.	18.8	49.4	0.
Real estate	0.	0.	0.	0.	0.	41.0	5.9	0.
Real estate operators and lessors	0.	0.	0.	0.	0.	48.8	6.0	0.
Subdividers and developers	0.	0.	0.	0.	0.	34.5	9.1	0.
Investment and holding companies	0.	0.	0.	0.	0.	19.1	51.3	9.6
Holding company offices	0.	0.	0.	0.	0.	18.5	37.4	0.
Misc. investing	0.	0.	0.	0.	0.	27.0	65.2	33.7

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Services	5.7	.4	0.	.3	.2	3.0	15.8	3.6
Hotels, motels, and lodging places	0.	0.	0.	0.	0.	48.9	0.	0.
Business services	4.3	.6	0.	.3	.2	2.7	24.8	5.3
Advertising	0.	0.	0.	0.	0.	25.5	39.2	0.
Mailing, reproduction, etc. services	0.	0.	0.	0.	0.	0.	21.7	0.
Personnel supply services	0.	0.	0.	0.	0.	8.0	5.1	0.
Computer and data processing services	.1	0.	0.	0.	0.	.9	31.8	.6
Misc. business services	6.4	.9	0.	.4	.3	3.1	23.2	7.7
Repair services	0.	0.	0.	0.	0.	.6	0.	0.
Electrical repair services	0.	0.	0.	0.	0.	0.	0.	0.
Misc. repair services	0.	0.	0.	0.	0.	2.0	0.	0.
Motion pictures	0.	0.	0.	0.	0.	13.2	4.1	0.
Motion picture production	0.	0.	0.	0.	0.	13.4	5.7	0.
Other services	7.1	.2	.1	.2	.1	3.0	9.5	2.5
Medical and dental laboratories	0.	0.	0.	0.	0.	0.	50.5	22.9
Job training and vocational rehabilitation	0.	0.	0.	0.	0.	13.6	63.6	0.
Business associations	0.	0.	0.	0.	0.	4.5	22.0	[illegible]
Professional membership organizations	0.	0.	0.	0.	0.	11.3	28.2	0.
Civic, social and fraternal organizations	0.	0.	0.	0.	0.	0.	94.0	0.
Religious organizations	0.	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	8.2	.2	.1	.3	.1	2.8	2.9	1.3
Noncommercial educational, scientific and research organizations	2.5	.3	0.	0.	.3	3.3	39.1	9.2
Accounting, auditing and bookkeeping	0.	0.	0.	0.	0.	2.1	54.3	.5
Services, n.e.c.	0.	0.	0.	0.	0.	9.6	67.1	21.9

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Total	2.5	.9	.0	.2	.6	.9	.1	.4
Mining	1.1	23.0	0.	0.	1.5	0.	0.	0.
Metallic minerals	4.0	27.4	0.	0.	0.	0.	0.	0.
Iron ore	10.5	0.	0.	0.	0.	0.	0.	0.
Copper ore	10.9	8.3	0.	0.	0.	0.	0.	0.
Lead and zinc ores	0.	25.0	0.	0.	0.	0.	0.	0.
Ferroalloy ores, except vanadium	0.	16.0	0.	0.	0.	0.	0.	0.
Metal mining services	0.	55.7	0.	0.	0.	0.	0.	0.
Misc. metallic ores	3.2	35.6	0.	0.	0.	0.	0.	0.
Coal	3.4	2.3	0.	0.	0.	0.	0.	0.
Bituminous and lignite	3.4	2.3	0.	0.	0.	0.	0.	0.
Oil and gas extraction	0.	26.0	0.	0.	1.6	0.	0.	0.
Crude petroleum and natural gas	0.	28.0	0.	0.	1.7	0.	0.	0.
Oil and gas services	0.	20.7	0.	0.	1.3	0.	0.	0.
Nonmetallic mineral mining	10.3	2.3	0.	0.	6.4	0.	0.	0.
Crushed and broken stone	0.	0.	0.	0.	14.6	0.	0.	0.
Clay, ceramic, etc., minerals	10.0	11.7	0.	0.	0.	0.	0.	0.
Chemical and fertilizer minerals	17.0	0.	0.	0.	8.5	0.	0.	0.
Construction	0.	0.	0.	0.	0.	0.	0.	0.
General building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Residential building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Operative builders	0.	0.	0.	0.	0.	0.	0.	0.
Nonresidential building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Other construction contractors	0.	0.	0.	0.	0.	0.	0.	0.
Highway and street construction	0.	0.	0.	0.	0.	0.	0.	0.
Heavy construction except highway	0.	0.	0.	0.	0.	0.	0.	0.
Special trade contractors	0.	0.	0.	0.	0.	0.	0.	0.
Plumbing, heating, air conditioning	0.	0.	0.	0.	0.	0.	0.	0.
Electrical work	0.	0.	0.	0.	0.	0.	0.	0.
Roofing, sheet metal work	0.	0.	0.	0.	0.	0.	0.	0.
Concrete work	0.	0.	0.	0.	0.	0.	0.	0.
Misc. special trade contractors	0.	0.	0.	0.	0.	0.	0.	0.
Manufacturing	4.1	.1	0.	.0	.7	1.1	.1	.5
Durable goods manufacturing	.7	0.	0.	.0	.7	.1	.1	0.
Lumber and wood products	0.	0.	0.	0.	.4	14.6	14.6	0.
Logging camps and contractors	0.	0.	0.	0.	0.	26.1	26.1	0.
Sawmills and planing mills	0.	0.	0.	0.	0.	40.4	40.4	0.
Millwork, and related products	0.	0.	0.	0.	0.	7.3	7.3	0.
Wood buildings and mobile homes	0.	0.	0.	0.	0.	0.	0.	0.
Misc. wood products	0.	0.	0.	0.	3.3	0.	0.	0.
Furniture and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Household furniture	0.	0.	0.	0.	0.	0.	0.	0.
Office furniture	0.	0.	0.	0.	0.	0.	0.	0.
Public building furniture	0.	0.	0.	0.	0.	0.	0.	0.
Partitions and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Misc. furniture and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Stone, clay and glass products	7.2	0.	0.	0.	1.4	0.	0.	0.
Flat glass	5.7	0.	0.	0.	0.	0.	0.	0.
Glass and glassware, pressed or blown	6.0	0.	0.	0.	0.	0.	0.	0.
Products of purchased glass	0.	0.	0.	0.	4.6	0.	0.	0.
Hydraulic cement	27.8	0.	0.	0.	2.2	0.	0.	0.
Structural clay products	3.4	0.	0.	0.	0.	0.	0.	0.
Pottery and related products	0.	0.	0.	0.	0.	0.	0.	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	4.1	0.	0.	0.
Misc. nonmetallic mineral products	7.6	0.	0.	0.	1.0	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Primary metals	4.7	0.	0.	0.	.6	0.	0.	0.
Blast furnace and primary steel products	4.8	0.	0.	0.	.2	0.	0.	0.
Iron and steel foundries	0.	0.	0.	0.	2.7	0.	0.	0.
Primary nonferrous metals	6.7	0.	0.	0.	0.	0.	0.	0.
Secondary nonferrous metals	20.6	0.	0.	0.	0.	0.	0.	0.
Nonferrous rolling and drawing	3.0	0.	0.	0.	.4	0.	0.	0.
Nonferrous foundries	0.	0.	0.	0.	1.8	0.	0.	0.
Misc. primary metal products	24.0	0.	0.	0.	0.	0.	0.	0.
Fabricated metal products	.9	0.	0.	0.	1.2	0.	0.	0.
Metal cans and shipping containers	0.	0.	0.	0.	6.3	0.	0.	0.
Cutlery, handtools, and hardware	0.	0.	0.	0.	3.0	0.	0.	0.
Plumbing and heating products	0.	0.	0.	0.	0.	0.	0.	0.
Fabricated structural metal products	0.	0.	0.	0.	1.4	0.	0.	0.
Screw machine products, bolts, etc.	0.	0.	0.	0.	0.	0.	0.	0.
Metal forgings and stampings	0.	0.	0.	0.	1.4	0.	0.	0.
Coating, engraving and allied services	21.2	0.	0.	0.	0.	0.	0.	0.
Ordnance and accessories	5.4	0.	0.	0.	0.	0.	0.	0.
Misc. fabricated metal products	0.	0.	0.	0.	.9	0.	0.	0.
Machinery	0.	0.	0.	0.	.5	0.	0.	0.
Engines and turbines	0.	0.	0.	0.	4.3	0.	0.	0.
Farm and garden machinery	0.	0.	0.	0.	0.	0.	0.	0.
Construction and related machinery	0.	0.	0.	0.	.5	0.	0.	0.
Metalworking machinery	0.	0.	0.	0.	.2	0.	0.	0.
Special industry machinery	0.	0.	0.	0.	.8	0.	0.	0.
General industrial machinery	0.	0.	0.	0.	.4	0.	0.	0.
Office and computing machines	0.	0.	0.	0.	.2	0.	0.	0.
Refrigeration and service industry machinery	0.	0.	0.	0.	.7	0.	0.	0.
Misc. machinery	0.	0.	0.	0.	.5	0.	0.	0.
Electrical machinery	.1	0.	0.	0.	.7	0.	0.	0.
Electrical distribution equipment	0.	0.	0.	0.	.3	0.	0.	0.
Electrical industrial apparatus	0.	0.	0.	0.	.4	0.	0.	0.
Household appliances	0.	0.	0.	0.	.7	0.	0.	0.
Electrical lighting and wiring equipment	0.	0.	0.	0.	1.2	0.	0.	0.
Radio and TV receiving equipment	0.	0.	0.	0.	0.	0.	0.	0.
Communications equipment	0.	0.	0.	0.	1.0	0.	0.	0.
Electronic components and accessories	.5	0.	0.	0.	.3	0.	0.	0.
Misc. electrical equipment	0.	0.	0.	0.	2.0	0.	0.	0.
Transportation equipment	.3	0.	0.	0.	.7	0.	0.	0.
Motor vehicles and equipment	0.	0.	0.	0.	1.6	0.	0.	0.
Aircraft and parts	.5	0.	0.	0.	.6	0.	0.	0.
Ship and boat building and repairing	0.	0.	0.	0.	.9	0.	0.	0.
Railroad equipment	0.	0.	0.	0.	0.	0.	0.	0.
Guided missiles and space vehicles	0.	0.	0.	0.	.3	0.	0.	0.
Misc. transportation equipment	0.	0.	0.	0.	0.	0.	0.	0.
Instruments	2.2	0.	0.	.0	.8	.4	0.	0.
Engineering and scientific instruments	1.4	0.	0.	0.	.8	0.	0.	0.
Measuring and controlling instruments	.5	0.	0.	0.	.4	0.	0.	0.
Optical instruments and lenses	3.9	0.	0.	.6	0.	0.	0.	0.
Medical instruments and supplies	3.1	0.	0.	0.	1.1	3.4	0.	0.
Ophthalmic goods	5.9	0.	0.	0.	0.	0.	0.	0.
Photographic equipment and supplies	6.0	0.	0.	0.	1.8	0.	0.	0.
Watches, clocks, and watchcases	0.	0.	0.	0.	0.	0.	0.	0.
Miscellaneous manufacturing	1.3	0.	0.	0.	1.7	0.	0.	0.
Musical instruments and parts	0.	0.	0.	0.	0.	0.	0.	0.
Toys and sporting goods	0.	0.	0.	0.	2.6	0.	0.	0.
Pens, pencils, office and art supplies	9.7	0.	0.	0.	0.	0.	0.	0.
Costume jewelry and notions	4.0	0.	0.	0.	0.	0.	0.	0.
Misc. manufacturers	0.	0.	0.	0.	2.2	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Nondurable goods	17.1	.2	0.	.2	.7	4.6	.2	2.5
Food and food products	20.7	0.	0.	0.	1.0	1.4	0.	0.
Meat products	0.	0.	0.	0.	4.6	0.	0.	0.
Dairy products	0.	0.	0.	0.	1.2	0.	0.	0.
Canned and preserved fruits and vegetables	0.	0.	0.	0.	3.3	5.1	0.	0.
Grain mill products	40.1	0.	0.	0.	0.	.5	0.	0.
Bakery products	0.	0.	0.	0.	0.	0.	0.	0.
Sugar and confectionery products	27.9	0.	0.	0.	0.	1.3	0.	0.
Fats and oils	76.8	0.	0.	0.	0.	0.	0.	0.
Beverages	13.6	0.	0.	0.	0.	2.4	0.	0.
Misc. food and kindred products	25.1	0.	0.	0.	0.	0.	0.	0.
Tobacco manufactures	0.	0.	0.	0.	0.	0.	0.	0.
Cigarettes	0.	0.	0.	0.	0.	0.	0.	0.
Textiles	3.9	.2	0.	.2	1.6	0.	0.	0.
Weaving mills, cotton	0.	0.	0.	0.	6.7	0.	0.	0.
Weaving mills, synthetics	4.1	1.1	0.	0.	0.	0.	0.	0.
Knitting mills	0.	0.	0.	0.	5.7	0.	0.	0.
Textile finishing, except wools	9.9	0.	0.	0.	0.	0.	0.	0.
Floor covering mills	1.1	0.	0.	0.	0.	0.	0.	0.
Yarn and thread mills	0.	0.	0.	0.	5.5	0.	0.	0.
Misc. textile goods	12.	0.	0.	0.	.4	0.	0.	0.
Apparel	0.	0.	0.	0.	0.	0.	0.	0.
Men's and boys' furnishings	0.	0.	0.	0.	0.	0.	0.	0.
Women's and misses' outerwear	0.	0.	0.	0.	0.	0.	0.	0.
Women's and children's undergarments	0.	0.	0.	0.	0.	0.	0.	0.
Misc. fabricated textiles	0.	0.	0.	0.	0.	0.	0.	0.
Paper and allied products	9.8	0.	0.	0.	1.1	1.0	0.	0.
Pulp mills	33.3	0.	0.	0.	0.	0.	0.	0.
Paper mills, except building paper	7.4	0.	0.	0.	2.2	2.3	0.	0.
Paperboard mills	11.5	0.	0.	0.	0.	0.	0.	0.
Misc. converted paper products	11.8	0.	0.	0.	0.	0.	0.	0.
Paperboard containers and boxes	0.	0.	0.	0.	1.3	0.	0.	0.
Printing and publishing	0.	0.	0.	0.	1.1	0.	0.	0.
Newspapers	0.	0.	0.	0.	0.	0.	0.	0.
Periodicals	0.	0.	0.	0.	0.	0.	0.	0.
Books	0.	0.	0.	0.	0.	0.	0.	0.
Misc. publishing	0.	0.	0.	0.	0.	0.	0.	0.
Commercial printing	0.	0.	0.	0.	7.8	0.	0.	0.
Manifold business forms	0.	0.	0.	0.	0.	0.	0.	0.
Greeting card publishing	0.	0.	0.	0.	0.	0.	0.	0.
Chemicals	22.6	0.	0.	.3	.7	8.0	.3	4.5
Industrial inorganic chemicals	20.5	0.	0.	.7	.9	1.4	0.	.7
Plastics materials and synthetics	13.8	0.	0.	0.	.8	.2	0.	0.
Drugs	19.0	0.	0.	0.	.8	27.4	1.0	16.1
Soaps, cleaners, and toilet goods	42.1	0.	0.	0.	.8	1.8	0.	1.3
Paints and allied products	57.4	0.	0.	0.	0.	0.	0.	0.
Industrial organic chemicals	20.3	0.	0.	.8	.6	2.6	0.	1.3
Agricultural chemicals	22.5	0.	0.	0.	0.	2.9	1.2	1.7
Misc. chemical products	33.4	0.	0.	0.	.8	1.5	0.	0.
Refined petroleum products	14.3	2.3	0.	0.	.3	0.	0.	0.
Petroleum refining	13.2	2.4	0.	0.	.3	0.	0.	0.
Paving and roofing materials	24.2	0.	0.	0.	0.	0.	0.	0.
Misc. petroleum and coal products	44.1	0.	0.	0.	0.	0.	0.	0.
Rubber and plastic products	7.7	0.	0.	0.	0.	0.	0.	0.
Tires and inner tubes	4.3	0.	0.	0.	0.	0.	0.	0.
Rubber and plastic hose and belting	8.7	0.	0.	0.	0.	0.	0.	0.
Fabricated rubber products, n.e.c.	15.2	0.	0.	0.	0.	0.	0.	0.
Misc. plastic products	6.4	0.	0.	0.	0.	0.	0.	0.
Leather products	8.0	0.	0.	0.	3.1	0.	0.	0.
Footwear, except rubber	0.	0.	0.	0.	0.	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Transportation, communications, public utilities	0.	0.	0.	0.	1.1	0.	0.	0.
Transportation, except railroads	0.	.2	0.	0.	1.6	0.	0.	0.
Trucking and warehousing	0.	0.	0.	0.	0.	0.	0.	0.
Water transportation	0.	0.	0.	0.	.3	0.	0.	0.
Air transportation	0.	0.	0.	0.	5.0	0.	0.	0.
Pipelines, except natural gas	0.	1.5	0.	0.	.5	0.	0.	0.
Transportation services	0.	0.	0.	0.	0.	0.	0.	0.
Communication	0.	0.	0.	0.	0.	0.	0.	0.
Telephone	0.	0.	0.	0.	0.	0.	0.	0.
Radio and TV broadcasting	0.	0.	0.	0.	0.	0.	0.	0.
Electric, gas and sanitary services	0.	0.	0.	0.	1.9	0.	0.	0.
Wholesale and retail trade	.4	0.	0.	0.	.1	.3	0.	0.
Wholesale trade	.4	0.	0.	0.	.1	.3	0.	0.
Durable goods wholesalers	.1	0.	0.	0.	.0	0.	0.	0.
Nondurable goods wholesalers	3.4	0.	0.	0.	.9	2.2	0.	0.
Retail trade	0.	0.	0.	0.	.1	.3	0.	0.
Building materials and garden supplies	0.	0.	0.	0.	0.	0.	0.	0.
General merchandise stores	0.	0.	0.	0.	0.	0.	0.	0.
Food stores	0.	0.	0.	0.	.6	0.	0.	0.
Auto dealers and service stations	0.	0.	0.	0.	.3	.4	0.	0.
Furniture and home furnishing stores	0.	0.	0.	0.	0.	0.	0.	0.
Eating and drinking places	0.	0.	0.	0.	0.	0.	0.	0.
Misc. retail stores	0.	0.	0.	0.	.1	1.0	0.	0.
Finance, insurance and real estate	0.	0.	0.	0.	0.	0.	0.	0.
Banking	0.	0.	0.	0.	0.	0.	0.	0.
Federal Reserve banks	0.	0.	0.	0.	0.	0.	0.	0.
Commercial and stock saving banks	0.	0.	0.	0.	0.	0.	0.	0.
Mutual savings banks	0.	0.	0.	0.	0.	0.	0.	0.
Other credit agencies	0.	0.	0.	0.	0.	0.	0.	0.
Personal credit institutions	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity brokers and dealers	0.	0.	0.	0.	0.	0.	0.	0.
Security brokers and dealers	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity services	0.	0.	0.	0.	0.	0.	0.	0.
Insurance	0.	0.	0.	0.	0.	0.	0.	0.
Life insurance	0.	0.	0.	0.	0.	0.	0.	0.
Medical services and health insurance	0.	0.	0.	0.	0.	0.	0.	0.
Fire, marine and casualty insurance	0.	0.	0.	0.	0.	0.	0.	0.
Insurance agents, brokers, and service	0.	0.	0.	0.	0.	0.	0.	0.
Real estate	0.	0.	0.	0.	0.	0.	0.	0.
Real estate operators and lessors	0.	0.	0.	0.	0.	0.	0.	0.
Subdividers and developers	0.	0.	0.	0.	0.	0.	0.	0.
Investment and holding companies	0.	0.	0.	0.	9.6	0.	0.	0.
Holding company offices	0.	0.	0.	0.	0.	0.	0.	0.
Misc. investing	0.	0.	0.	0.	33.7	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Services	1.5	.7	0.	.8	.5	1.5	.1	.4
Hotels, motels, and lodging places	0.	0.	0.	0.	0.	0.	0.	0.
Business services	2.7	.6	0.	1.5	.4	1.3	.3	.8
Advertising	0.	0.	0.	0.	0.	0.	0.	0.
Mailing, reproduction, etc. services	0.	0.	0.	0.	0.	0.	0.	0.
Personnel supply services	0.	0.	0.	0.	0.	0.	0.	0.
Computer and data processing services	0.	.2	0.	0.	.3	0.	0.	0.
Misc. business services	4.1	.8	0.	2.3	.5	1.9	.4	1.2
Repair services	0.	0.	0.	0.	0.	0.	0.	0.
Electrical repair services	0.	0.	0.	0.	0.	0.	0.	0.
Misc. repair services	0.	0.	0.	0.	0.	0.	0.	0.
Motion pictures	0.	0.	0.	0.	0.	0.	0.	0.
Motion picture production	0.	0.	0.	0.	0.	0.	0.	0.
Other services	.6	.9	.1	.3	.5	1.7	0.	.1
Medical and dental laboratories	22.9	0.	0.	0.	0.	27.6	0.	27.6
Job training and vocational rehabilitation	0.	0.	0.	0.	0.	0.	0.	0.
Business associations	0.	0.	0.	0.	2.2	0.	0.	0.
Professional membership organizations	0.	0.	0.	0.	0.	0.	0.	0.
Civic, social and fraternal organizations	0.	0.	0.	0.	0.	0.	0.	0.
Religious organizations	0.	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	.2	.7	0.	.2	.2	.3	0.	0.
Noncommercial educational, scientific and research organizations	3.9	.6	.6	1.7	2.4	15.3	0.	0.
Accounting, auditing and bookkeeping	0.	0.	0.	0.	.5	0.	0.	0.
Services, n.e.c.	0.	15.5	0.	0.	6.4	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Total	.0	.4	1.2	.2	.5	.6	.6	.2
Mining	0.	0.	.9	0.	0.	.9	0.	0.
Metallic minerals	0.	0.	0.	0.	0.	0.	0.	0.
Iron ore	0.	0.	0.	0.	0.	0.	0.	0.
Copper ore	0.	0.	0.	0.	0.	0.	0.	0.
Lead and zinc ores	0.	0.	0.	0.	0.	0.	0.	0.
Ferroalloy ores, except vanadium	0.	0.	0.	0.	0.	0.	0.	0.
Metal mining services	0.	0.	0.	0.	0.	0.	0.	0.
Misc. metallic ores	0.	0.	0.	0.	0.	0.	0.	0.
Coal	0.	0.	1.0	0.	0.	1.0	0.	0.
Bituminous and lignite	0.	0.	1.0	0.	0.	1.0	0.	0.
Oil and gas extraction	0.	0.	1.0	0.	0.	1.0	0.	0.
Crude petroleum and natural gas	0.	0.	1.5	0.	0.	1.5	0.	0.
Oil and gas services	0.	0.	0.	0.	0.	0.	0.	0.
Nonmetallic mineral mining	0.	0.	0.	0.	0.	0.	0.	0.
Crushed and broken stone	0.	0.	0.	0.	0.	0.	0.	0.
Clay, ceramic, etc., minerals	0.	0.	0.	0.	0.	0.	0.	0.
Chemical and fertilizer minerals	0.	0.	0.	0.	0.	0.	0.	0.
Construction	0.	0.	0.	0.	0.	0.	0.	0.
General building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Residential building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Operative builders	0.	0.	0.	0.	0.	0.	0.	0.
Nonresidential building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Other construction contractors	0.	0.	0.	0.	0.	0.	0.	0.
Highway and street construction	0.	0.	0.	0.	0.	0.	0.	0.
Heavy construction except highway	0.	0.	0.	0.	0.	0.	0.	0.
Special trade contractors	0.	0.	0.	0.	0.	0.	0.	0.
Plumbing, heating, air conditioning	0.	0.	0.	0.	0.	0.	0.	0.
Electrical work	0.	0.	0.	0.	0.	0.	0.	0.
Roofing, sheet metal work	0.	0.	0.	0.	0.	0.	0.	0.
Concrete work	0.	0.	0.	0.	0.	0.	0.	0.
Misc. special trade contractors	0.	0.	0.	0.	0.	0.	0.	0.
Manufacturing	.1	.3	.7	.1	.3	.3	.2	0.
Durable goods manufacturing	0.	.0	.6	.1	.3	.2	.3	0.
Lumber and wood products	0.	0.	0.	0.	0.	0.	0.	0.
Logging camps and contractors	0.	0.	0.	0.	0.	0.	0.	0.
Sawmills and planing mills	0.	0.	0.	0.	0.	0.	0.	0.
Millwork, and related products	0.	0.	0.	0.	0.	0.	0.	0.
Wood buildings and mobile homes	0.	0.	0.	0.	0.	0.	0.	0.
Misc. wood products	0.	0.	0.	0.	0.	0.	0.	0.
Furniture and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Household furniture	0.	0.	0.	0.	0.	0.	0.	0.
Office furniture	0.	0.	0.	0.	0.	0.	0.	0.
Public building furniture	0.	0.	0.	0.	0.	0.	0.	0.
Partitions and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Misc. furniture and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Stone, clay and glass products	0.	0.	0.	0.	0.	0.	0.	0.
Flat glass	0.	0.	0.	0.	0.	0.	0.	0.
Glass and glassware, pressed or blown	0.	0.	0.	0.	0.	0.	0.	0.
Products of purchased glass	0.	0.	0.	0.	0.	0.	0.	0.
Hydraulic cement	0.	0.	0.	0.	0.	0.	0.	0.
Structural clay products	0.	0.	0.	0.	0.	0.	0.	0.
Pottery and related products	0.	0.	0.	0.	0.	0.	0.	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	0.	0.	0.	0.
Misc. nonmetallic mineral products	0.	0.	0.	0.	0.	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Primary metals	0.	0.	0.	0.	0.	0.	0.	0.
Blast furnace and primary steel products	0.	0.	0.	0.	0.	0.	0.	0.
Iron and steel foundries	0.	0.	0.	0.	0.	0.	0.	0.
Primary nonferrous metals	0.	0.	0.	0.	0.	0.	0.	0.
Secondary nonferrous metals	0.	0.	0.	0.	0.	0.	0.	0.
Nonferrous rolling and drawing	0.	0.	0.	0.	0.	0.	0.	0.
Nonferrous foundries	0.	0.	0.	0.	0.	0.	0.	0.
Misc. primary metal products	0.	0.	0.	0.	0.	0.	0.	0.
Fabricated metal products	0.	0.	.2	0.	0.	.2	0.	0.
Metal cans and shipping containers	0.	0.	0.	0.	0.	0.	0.	0.
Cutlery, handtools, and hardware	0.	0.	0.	0.	0.	0.	0.	0.
Plumbing and heating products	0.	0.	0.	0.	0.	0.	0.	0.
Fabricated structural metal products	0.	0.	.1	0.	0.	.1	0.	0.
Screw machine products, bolts, etc.	0.	0.	0.	0.	0.	0.	0.	0.
Metal forgings and stampings	0.	0.	1.4	0.	0.	1.4	0.	0.
Coating, engraving and allied services	0.	0.	0.	0.	0.	0.	0.	0.
Ordnance and accessories	0.	0.	0.	0.	0.	0.	0.	0.
Misc. fabricated metal products	0.	0.	0.	0.	0.	0.	0.	0.
Machinery	0.	0.	.1	0.	0.	.1	0.	0.
Engines and turbines	0.	0.	0.	0.	0.	0.	0.	0.
Farm and garden machinery	0.	0.	0.	0.	0.	0.	0.	0.
Construction and related machinery	0.	0.	.5	0.	0.	.5	0.	0.
Metalworking machinery	0.	0.	0.	0.	0.	0.	0.	0.
Special industry machinery	0.	0.	0.	0.	0.	0.	0.	0.
General industrial machinery	0.	0.	.2	0.	0.	.2	0.	0.
Office and computing machines	0.	0.	0.	0.	0.	0.	0.	0.
Refrigeration and service industry machinery	0.	0.	0.	0.	0.	0.	0.	0.
Misc. machinery	0.	0.	0.	0.	0.	0.	0.	0.
Electrical machinery	0.	0.	.7	.4	0.	.4	.7	0.
Electrical distribution equipment	0.	0.	0.	0.	0.	0.	0.	0.
Electrical industrial apparatus	0.	0.	.4	0.	0.	.4	0.	0.
Household appliances	0.	0.	0.	0.	0.	0.	0.	0.
Electrical lighting and wiring equipment	0.	0.	.7	0.	0.	.7	0.	0.
Radio and TV receiving equipment	0.	0.	0.	0.	0.	0.	0.	0.
Communications equipment	0.	0.	1.2	.7	0.	.5	1.3	0.
Electronic components and accessories	0.	0.	.2	0.	0.	.2	0.	0.
Misc. electrical equipment	0.	0.	.6	0.	0.	.6	0.	0.
Transportation equipment	0.	0.	1.7	0.	1.4	.3	.3	0.
Motor vehicles and equipment	0.	0.	4.3	0.	4.3	0.	0.	0.
Aircraft and parts	0.	0.	1.8	0.	1.4	.5	.6	0.
Ship and boat building and repairing	0.	0.	0.	0.	0.	0.	0.	0.
Railroad equipment	0.	0.	0.	0.	0.	0.	0.	0.
Guided missiles and space vehicles	0.	0.	.2	0.	0.	.2	0.	0.
Misc. transportation equipment	0.	0.	0.	0.	0.	0.	0.	0.
Instruments	0.	.4	.3	0.	0.	.3	0.	0.
Engineering and scientific instruments	0.	0.	0.	0.	0.	0.	0.	0.
Measuring and controlling instruments	0.	0.	.6	0.	0.	.6	0.	0.
Optical instruments and lenses	0.	0.	0.	0.	0.	0.	0.	0.
Medical instruments and supplies	0.	3.4	.5	0.	0.	.5	0.	0.
Ophthalmic goods	0.	0.	0.	0.	0.	0.	0.	0.
Photographic equipment and supplies	0.	0.	0.	0.	0.	0.	0.	0.
Watches, clocks, and watchcases	0.	0.	0.	0.	0.	0.	0.	0.
Miscellaneous manufacturing	0.	0.	0.	0.	0.	0.	0.	0.
Musical instruments and parts	0.	0.	0.	0.	0.	0.	0.	0.
Toys and sporting goods	0.	0.	0.	0.	0.	0.	0.	0.
Pens, pencils, office and art supplies	0.	0.	0.	0.	0.	0.	0.	0.
Costume jewelry and notions	0.	0.	0.	0.	0.	0.	0.	0.
Misc. manufacturers	0.	0.	0.	0.	0.	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Nondurable goods	.4	1.5	1.0	0.	.4	.7	.1	0.
Food and food products	0.	1.4	0.	0.	0.	0.	0.	0.
Meat products	0.	0.	0.	0.	0.	0.	0.	0.
Dairy products	0.	0.	0.	0.	0.	0.	0.	0.
Canned and preserved fruits and vegetables	0.	5.1	0.	0.	0.	0.	0.	0.
Grain mill products	0.	.5	0.	0.	0.	0.	0.	0.
Bakery products	0.	0.	0.	0.	0.	0.	0.	0.
Sugar and confectionery products	0.	1.3	0.	0.	0.	0.	0.	0.
Fats and oils	0.	0.	0.	0.	0.	0.	0.	0.
Beverages	0.	2.4	0.	0.	0.	0.	0.	0.
Misc. food and kindred products	0.	0.	0.	0.	0.	0.	0.	0.
Tobacco manufactures	0.	0.	0.	0.	0.	0.	0.	0.
Cigarettes	0.	0.	0.	0.	0.	0.	0.	0.
Textiles	0.	0.	0.	0.	0.	0.	0.	0.
Weaving mills, cotton	0.	0.	0.	0.	0.	0.	0.	0.
Weaving mills, synthetics	0.	0.	0.	0.	0.	0.	0.	0.
Knitting mills	0.	0.	0.	0.	0.	0.	0.	0.
Textile finishing, except wools	0.	0.	0.	0.	0.	0.	0.	0.
Floor covering mills	0.	0.	0.	0.	0.	0.	0.	0.
Yarn and thread mills	0.	0.	0.	0.	0.	0.	0.	0.
Misc. textile goods	0.	0.	0.	0.	0.	0.	0.	0.
Apparel	0.	0.	0.	0.	0.	0.	0.	0.
Men's and boys' furnishings	0.	0.	0.	0.	0.	0.	0.	0.
Women's and misses' outerwear	0.	0.	0.	0.	0.	0.	0.	0.
Women's and children's undergarments	0.	0.	0.	0.	0.	0.	0.	0.
Misc. fabricated textiles	0.	0.	0.	0.	0.	0.	0.	0.
Paper and allied products	0.	1.0	.3	0.	0.	.3	0.	0.
Pulp mills	0.	0.	0.	0.	0.	0.	0.	0.
Paper mills, except building paper	0.	2.3	.8	0.	0.	.8	0.	0.
Paperboard mills	0.	0.	0.	0.	0.	0.	0.	0.
Misc. converted paper products	0.	0.	0.	0.	0.	0.	0.	0.
Paperboard containers and boxes	0.	0.	0.	0.	0.	0.	0.	0.
Printing and publishing	0.	0.	3.8	0.	.7	3.1	1.6	0.
Newspapers	0.	0.	2.6	0.	0.	2.6	2.2	0.
Periodicals	0.	0.	11.9	0.	4.4	7.4	3.0	0.
Books	0.	0.	0.	0.	0.	0.	0.	0.
Misc. publishing	0.	0.	10.7	0.	0.	10.7	0.	0.
Commercial printing	0.	0.	1.6	0.	0.	1.6	3.1	0.
Manifold business forms	0.	0.	0.	0.	0.	0.	0.	0.
Greeting card publishing	0.	0.	0.	0.	0.	0.	0.	0.
Chemicals	.8	2.4	1.0	0.	.4	.6	0.	0.
Industrial inorganic chemicals	0.	.7	.4	0.	0.	.4	0.	0.
Plastics materials and synthetics	0.	.2	1.4	0.	0.	1.4	0.	0.
Drugs	2.8	7.6	1.2	0.	.9	.3	0.	0.
Soaps, cleaners, and toilet goods	0.	.5	1.0	0.	0.	1.0	0.	0.
Paints and allied products	0.	0.	0.	0.	0.	0.	0.	0.
Industrial organic chemicals	.3	1.0	1.2	0.	.4	.8	0.	0.
Agricultural chemicals	0.	0.	1.5	0.	1.5	0.	0.	0.
Misc. chemical products	0.	1.5	.4	0.	0.	.4	0.	0.
Refined petroleum products	0.	0.	2.8	0.	1.2	1.5	0.	0.
Petroleum refining	0.	0.	2.9	0.	1.3	1.6	0.	0.
Paving and roofing materials	0.	0.	0.	0.	0.	0.	0.	0.
Misc. petroleum and coal products	0.	0.	0.	0.	0.	0.	0.	0.
Rubber and plastic products	0.	0.	.3	0.	0.	.3	.2	0.
Tires and inner tubes	0.	0.	.6	0.	0.	.6	0.	0.
Rubber and plastic hose and belting	0.	0.	0.	0.	0.	0.	0.	0.
Fabricated rubber products, n.e.c.	0.	0.	0.	0.	0.	0.	0.	0.
Misc. plastic products	0.	0.	.3	0.	0.	.3	.3	0.
Leather products	0.	0.	0.	0.	0.	0.	0.	0.
Footwear, except rubber	0.	0.	0.	0.	0.	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Transportation, communications, public utilities	0.	0.	.3	0.	0.	.3	.1	.1
Transportation, except railroads	0.	0.	.3	0.	0.	.3	0.	0.
Trucking and warehousing	0.	0.	2.4	0.	0.	2.4	0.	0.
Water transportation	0.	0.	0.	0.	0.	0.	0.	0.
Air transportation	0.	0.	0.	0.	0.	0.	0.	0.
Pipelines, except natural gas	0.	0.	0.	0.	0.	0.	0.	0.
Transportation services	0.	0.	2.2	0.	0.	2.2	0.	0.
Communication	0.	0.	.6	0.	0.	.6	.2	.2
Telephone	0.	0.	.6	0.	0.	.6	.2	.2
Radio and TV broadcasting	0.	0.	.4	0.	0.	.4	0.	0.
Electric, gas and sanitary services	0.	0.	0.	0.	0.	0.	0.	0.
Wholesale and retail trade	0.	.3	.4	0.	.2	.1	.2	.1
Wholesale trade	0.	.3	.2	0.	.1	.1	.1	.1
Durable goods wholesalers	0.	.0	.1	0.	.1	.1	.1	.1
Nondurable goods wholesalers	0.	2.2	.5	0.	.2	.3	.3	.2
Retail trade	0.	.3	2.8	0.	2.0	.8	1.2	0.
Building materials and garden supplies	0.	0.	1.3	0.	0.	1.3	0.	0.
General merchandise stores	0.	0.	2.9	0.	2.3	.6	1.9	0.
Food stores	0.	0.	7.1	0.	0.	7.1	6.9	0.
Auto dealers and service stations	0.	.4	.1	0.	0.	.1	.7	0.
Furniture and home furnishing stores	0.	0.	0.	0.	0.	0.	.2	0.
Eating and drinking places	0.	0.	0.	0.	0.	0.	0.	0.
Misc. retail stores	0.	1.0	4.4	0.	4.3	.1	.0	0.
Finance, insurance and real estate	0.	0.	12.2	0.	4.1	8.0	2.2	2.0
Banking	0.	0.	0.	0.	0.	0.	4.7	4.7
Federal Reserve banks	0.	0.	0.	0.	0.	0.	24.4	24.4
Commercial and stock saving banks	0.	0.	0.	0.	0.	0.	2.9	2.9
Mutual savings banks	0.	0.	0.	0.	0.	0.	0.	0.
Other credit agencies	0.	0.	3.3	0.	0.	3.3	0.	0.
Personal credit institutions	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity brokers and dealers	0.	0.	14.3	0.	12.8	1.6	14.1	11.6
Security brokers and dealers	0.	0.	4.3	0.	4.3	0.	18.8	18.8
Security and commodity services	0.	0.	29.6	0.	29.6	0.	0.	0.
Insurance	0.	0.	18.9	0.	5.8	13.1	.4	.4
Life insurance	0.	0.	23.1	0.	7.0	16.0	.3	.3
Medical services and health insurance	0.	0.	12.4	0.	3.7	8.7	1.7	1.7
Fire, marine and casualty insurance	0.	0.	11.2	0.	4.2	7.0	0.	0.
Insurance agents, brokers, and service	0.	0.	34.1	0.	9.0	25.1	0.	0.
Real estate	0.	0.	0.	0.	0.	0.	0.	0.
Real estate operators and lessors	0.	0.	0.	0.	0.	0.	0.	0.
Subdividers and developers	0.	0.	0.	0.	0.	0.	0.	0.
Investment and holding companies	0.	0.	6.1	4.1	1.9	0.	15.9	1.6
Holding company offices	0.	0.	3.1	0.	3.1	0.	2.6	2.6
Misc. investing	0.	0.	9.0	9.0	0.	0.	22.5	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Services	0.	1.0	1.6	.5	.7	.5	1.8	.5
Hotels, motels, and lodging places	0.	0.	0.	0.	0.	0.	0.	0.
Business services	0.	.2	1.8	.7	.9	.2	2.3	.9
Advertising	0.	0.	25.5	0.	25.5	0.	0.	0.
Mailing, reproduction, etc. services	0.	0.	0.	0.	0.	0.	0.	0.
Personnel supply services	0.	0.	0.	0.	0.	0.	0.	0.
Computer and data processing services	0.	0.	1.0	0.	.3	.7	.2	0.
Misc. business services	0.	.3	2.2	1.1	1.1	0.	3.4	1.4
Repair services	0.	0.	0.	0.	0.	0.	0.	0.
Electrical repair services	0.	0.	0.	0.	0.	0.	0.	0.
Misc. repair services	0.	0.	0.	0.	0.	0.	0.	0.
Motion pictures	0.	0.	0.	0.	0.	0.	0.	0.
Motion picture production	0.	0.	0.	0.	0.	0.	0.	0.
Other services	0.	1.6	1.6	.3	.6	.7	1.5	.3
Medical and dental laboratories	0.	0.	0.	0.	0.	0.	0.	0.
Job training and vocational rehabilitation	0.	0.	0.	0.	0.	0.	63.6	0.
Business associations	0.	0.	15.3	0.	15.3	0.	4.5	2.0
Professional membership organizations	0.	0.	28.2	0.	28.2	0.	0.	0.
Civic, social and fraternal organizations	0.	0.	43.4	0.	43.4	0.	50.6	0.
Religious organizations	0.	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	0.	.3	.3	.2	.0	.0	.2	.1
Noncommercial educational, scientific and research organizations	0.	15.3	2.1	1.0	.9	.2	9.8	1.9
Accounting, auditing and bookkeeping	0.	0.	5.3	0.	0.	5.3	0.	0.
Services, n.e.c.	0.	0.	35.9	0.	3.4	32.5	7.2	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Total	.1	.0	.3	5.7	49.1	34.0	11.2	12.3
Mining	0.	0.	0.	4.0	34.3	23.6	8.7	1.9
Metallic minerals	0.	0.	0.	.5	33.7	17.6	5.8	0.
Iron ore	0.	0.	0.	0.	38.2	22.4	6.6	0.
Copper ore	0.	0.	0.	3.0	33.5	13.9	3.5	0.
Lead and zinc ores	0.	0.	0.	0.	35.4	20.8	0.	0.
Ferroalloy ores, except vanadium	0.	0.	0.	0.	22.0	0.	0.	0.
Metal mining services	0.	0.	0.	0.	34.2	25.3	11.4	0.
Misc. metallic ores	0.	0.	0.	0.	36.2	19.1	7.4	0.
Coal	0.	0.	0.	2.6	39.7	29.9	11.7	0.
Bituminous and lignite	0.	0.	0.	2.6	39.6	30.0	11.7	0.
Oil and gas extraction	0.	0.	0.	4.7	33.0	23.9	9.0	2.4
Crude petroleum and natural gas	0.	0.	0.	5.8	31.0	21.4	9.6	.7
Oil and gas services	0.	0.	0.	2.0	38.0	30.6	7.6	7.0
Nonmetallic mineral mining	0.	0.	0.	0.	47.8	15.8	3.2	0.
Crushed and broken stone	0.	0.	0.	0.	43.8	18.8	0.	0.
Clay, ceramic, etc., minerals	0.	0.	0.	0.	56.7	10.0	0.	0.
Chemical and fertilizer minerals	0.	0.	0.	0.	46.8	18.4	6.4	0.
Construction	0.	0.	0.	1.3	49.9	46.1	22.9	16.9
General building contractors	0.	0.	0.	1.2	50.2	44.2	34.5	2.6
Residential building contractors	0.	0.	0.	0.	59.7	57.3	52.0	0.
Operative builders	0.	0.	0.	0.	63.2	56.4	49.6	6.8
Nonresidential building contractors	0.	0.	0.	1.7	45.7	38.4	26.9	3.4
Other construction contractors	0.	0.	0.	2.5	34.5	30.0	18.4	.7
Highway and street construction	0.	0.	0.	1.4	39.9	31.5	0.	0.
Heavy construction except highway	0.	0.	0.	2.7	34.1	29.9	20.0	.7
Special trade contractors	0.	0.	0.	0.	66.9	65.2	21.4	43.1
Plumbing, heating, air conditioning	0.	0.	0.	0.	46.5	45.5	43.9	0.
Electrical work	0.	0.	0.	0.	83.1	82.8	10.3	72.5
Roofing, sheet metal work	0.	0.	0.	0.	19.1	19.1	19.1	0.
Concrete work	0.	0.	0.	0.	11.0	5.5	5.5	0.
Misc. special trade contractors	0.	0.	0.	0.	50.8	43.4	40.5	0.
Manufacturing	0.	0.	.2	2.9	44.3	30.0	9.0	9.9
Durable goods manufacturing	0.	0.	.3	2.7	44.5	35.2	10.7	12.3
Lumber and wood products	0.	0.	0.	2.1	57.0	38.8	30.7	0.
Logging camps and contractors	0.	0.	0.	0.	56.5	17.4	0.	0.
Sawmills and planing mills	0.	0.	0.	0.	36.5	12.2	0.	0.
Millwork, and related products	0.	0.	0.	5.9	63.9	49.3	43.9	0.
Wood buildings and mobile homes	0.	0.	0.	0.	78.9	70.7	64.7	0.
Misc. wood products	0.	0.	0.	0.	44.3	21.3	16.4	0.
Furniture and fixtures	0.	0.	0.	4.4	57.8	43.1	32.5	0.
Household furniture	0.	0.	0.	7.2	50.6	28.7	15.5	0.
Office furniture	0.	0.	0.	5.0	46.3	31.3	22.5	0.
Public building furniture	0.	0.	0.	0.	64.4	60.0	48.9	0.
Partitions and fixtures	0.	0.	0.	0.	75.8	71.0	64.5	0.
Misc. furniture and fixtures	0.	0.	0.	5.8	59.6	44.2	32.7	0.
Stone, clay and glass products	0.	0.	0.	2.0	51.5	28.9	13.8	1.9
Flat glass	0.	0.	0.	2.9	44.3	22.9	4.3	0.
Glass and glassware, pressed or blown	0.	0.	0.	2.4	53.1	26.6	8.9	7.3
Products of purchased glass	0.	0.	0.	0.	47.7	35.4	20.0	0.
Hydraulic cement	0.	0.	0.	2.2	42.2	17.2	3.9	4.4
Structural clay products	0.	0.	0.	3.4	42.5	25.3	11.5	0.
Pottery and related products	0.	0.	0.	0.	50.4	26.9	6.7	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	66.3	50.6	39.5	0.
Misc. nonmetallic mineral products	0.	0.	0.	2.8	48.3	23.1	7.8	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Primary metals	0.	0.	0.	3.9	45.1	32.1	8.1	3.4
Blast furnace and primary steel products	0.	0.	0.	4.9	47.9	33.6	8.4	4.1
Iron and steel foundries	0.	0.	0.	3.2	42.6	33.1	9.0	0.
Primary nonferrous metals	0.	0.	0.	5.1	43.2	29.3	7.5	4.9
Secondary nonferrous metals	0.	0.	0.	0.	40.2	16.7	2.0	0.
Nonferrous rolling and drawing	0.	0.	0.	3.6	43.7	31.2	8.0	4.7
Nonferrous foundries	0.	0.	0.	0.	44.1	38.8	12.9	0.
Misc. primary metal products	0.	0.	0.	0.	37.3	26.7	0.	0.
Fabricated metal products	0.	0.	0.	2.1	51.9	44.2	30.7	1.6
Metal cans and shipping containers	0.	0.	0.	0.	38.1	26.2	9.5	9.5
Cutlery, handtools, and hardware	0.	0.	0.	4.3	39.7	29.2	14.3	2.3
Plumbing and heating products	0.	0.	0.	2.5	46.4	37.5	24.8	1.2
Fabricated structural metal products	0.	0.	0.	1.8	59.4	54.1	45.7	0.
Screw machine products, bolts, etc.	0.	0.	0.	3.7	43.6	35.4	17.7	0.
Metal forgings and stampings	0.	0.	0.	0.	45.2	34.5	17.6	0.
Coating, engraving and allied services	0.	0.	0.	0.	38.1	22.1	13.3	0.
Ordnance and accessories	0.	0.	0.	1.8	45.2	35.2	8.1	7.5
Misc. fabricated metal products	0.	0.	0.	3.1	49.9	41.5	24.7	2.5
Machinery	0.	0.	0.	3.6	52.8	41.2	14.3	14.1
Engines and turbines	0.	0.	0.	2.5	40.2	31.8	10.3	0.
Farm and garden machinery	0.	0.	0.	4.4	52.7	45.3	14.2	2.4
Construction and related machinery	0.	0.	0.	2.1	52.3	45.2	25.0	2.7
Metalworking machinery	0.	0.	0.	1.2	50.6	45.9	26.9	5.8
Special industry machinery	0.	0.	0.	0.	59.4	53.8	31.6	0.
General industrial machinery	0.	0.	0.	1.8	50.0	44.4	21.1	5.0
Office and computing machines	0.	0.	0.	5.7	54.7	36.9	4.1	26.3
Refrigeration and service industry machinery	0.	0.	0.	2.3	55.0	48.6	26.1	6.4
Misc. machinery	0.	0.	0.	0.	49.2	43.9	25.1	3.5
Electrical machinery	0.	0.	.7	2.6	42.3	36.2	6.8	21.2
Electrical distribution equipment	0.	0.	0.	1.8	52.3	47.6	23.1	16.9
Electrical industrial apparatus	0.	0.	0.	2.1	50.8	53.8	13.6	19.7
Household appliances	0.	0.	0.	5.0	45.5	31.5	8.0	7.9
Electrical lighting and wiring equipment	0.	0.	0.	3.1	43.2	35.3	13.6	10.5
Radio and TV receiving equipment	0.	0.	0.	4.4	45.6	39.1	6.8	24.7
Communications equipment	0.	0.	1.3	3.1	35.6	29.8	5.0	19.3
Electronic components and accessories	0.	0.	0.	1.6	50.8	45.9	5.2	29.3
Misc. electrical equipment	0.	0.	0.	1.4	44.0	33.2	6.8	13.5
Transportation equipment	0.	0.	.3	2.3	30.9	24.1	4.7	2.8
Motor vehicles and equipment	0.	0.	0.	2.7	35.5	28.5	6.6	0.
Aircraft and parts	0.	0.	.6	2.9	31.1	23.8	3.9	4.5
Ship and boat building and repairing	0.	0.	0.	0.	57.0	41.5	27.5	3.9
Railroad equipment	0.	0.	0.	3.2	35.4	30.4	13.8	1.1
Guided missiles and space vehicles	0.	0.	0.	.9	21.2	17.6	0.	0.
Misc. transportation equipment	0.	0.	0.	0.	53.6	44.8	23.0	4.4
Instruments	0.	0.	0.	1.5	49.3	35.5	8.6	16.6
Engineering and scientific instruments	0.	0.	0.	1.2	49.0	32.9	8.1	17.1
Measuring and controlling instruments	0.	0.	0.	2.1	47.8	43.6	9.9	22.6
Optical instruments and lenses	0.	0.	0.	1.5	44.7	36.9	6.0	10.1
Medical instruments and supplies	0.	0.	0.	1.6	60.8	24.0	7.4	7.2
Ophthalmic goods	0.	0.	0.	7.4	48.5	22.1	10.3	0.
Photographic equipment and supplies	0.	0.	0.	0.	46.6	29.2	8.1	13.2
Watches, clocks, and watchcases	0.	0.	0.	0.	41.6	26.0	10.4	6.5
Miscellaneous manufacturing	0.	0.	0.	3.1	55.4	38.4	14.9	10.6
Musical instruments and parts	0.	0.	0.	0.	62.9	57.3	9.0	40.4
Toys and sporting goods	0.	0.	0.	6.8	44.3	26.8	10.2	4.7
Pens, pencils, office and art supplies	0.	0.	0.	4.8	46.8	19.4	9.7	0.
Costume jewelry and notions	0.	0.	0.	6.1	46.5	29.3	7.1	0.
Misc. manufacturers	0.	0.	0.	0.	67.4	51.6	26.0	14.3

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Nondurable goods	0.	0.	.1	3.7	43.6	10.6	2.7	1.0
Food and food products	0.	0.	0.	1.0	59.1	4.6	1.2	0.
Meat products	0.	0.	0.	0.	77.8	0.	0.	0.
Dairy products	0.	0.	0.	0.	92.7	4.9	0.	0.
Canned and preserved fruits and vegetables	0.	0.	0.	0.	76.9	5.9	0.	0.
Grain mill products	0.	0.	0.	2.8	47.1	2.6	2.6	0.
Bakery products	0.	0.	0.	0.	87.8	12.2	0.	0.
Sugar and confectionery products	0.	0.	0.	3.7	52.7	13.1	5.4	0.
Fats and oils	0.	0.	0.	0.	17.9	0.	0.	0.
Beverages	0.	0.	0.	0.	58.4	3.1	0.	0.
Misc. food and kindred products	0.	0.	0.	0.	40.8	1.9	0.	0.
Tobacco manufactures	0.	0.	0.	4.7	72.3	13.3	0.	0.
Cigarettes	0.	0.	0.	5.6	73.2	13.6	0.	0.
Textiles	0.	0.	0.	3.4	68.1	8.3	0.	0.
Weaving mills, cotton	0.	0.	0.	0.	51.5	6.7	0.	0.
Weaving mills, synthetics	0.	0.	0.	8.6	56.1	6.3	0.	0.
Knitting mills	0.	0.	0.	7.6	56.9	7.6	0.	0.
Textile finishing, except wools	0.	0.	0.	2.8	69.5	4.7	0.	0.
Floor covering mills	0.	0.	0.	1.1	94.5	8.9	0.	0.
Yarn and thread mills	0.	0.	0.	0.	51.8	14.5	0.	0.
Misc. textile goods	0.	0.	0.	3.1	54.4	11.2	0.	0.
Apparel	0.	0.	0.	0.	40.3	8.5	0.	0.
Men's and boys' furnishings	0.	0.	0.	0.	42.7	8.9	0.	0.
Women's and misses' outerwear	0.	0.	0.	0.	34.5	5.7	0.	0.
Women's and children's undergarments	0.	0.	0.	0.	48.1	5.8	0.	0.
Misc. fabricated textiles	0.	0.	0.	0.	37.9	14.6	0.	0.
Paper and allied products	0.	0.	0.	4.0	38.0	16.5	5.5	0.
Pulp mills	0.	0.	0.	0.	22.6	6.0	2.4	0.
Paper mills, except building paper	0.	0.	0.	4.3	38.9	14.2	4.8	0.
Paperboard mills	0.	0.	0.	2.1	34.0	19.9	7.3	0.
Misc. converted paper products	0.	0.	0.	7.0	41.4	18.0	4.8	0.
Paperboard containers and boxes	0.	0.	0.	0.	39.7	23.8	10.6	0.
Printing and publishing	0.	0.	1.6	15.8	61.4	19.7	2.3	6.8
Newspapers	0.	0.	2.2	29.3	55.9	25.9	0.	22.2
Periodicals	0.	0.	3.0	17.0	60.7	13.3	0.	0.
Books	0.	0.	0.	25.2	61.3	7.2	0.	0.
Misc. publishing	0.	0.	0.	10.7	66.7	25.0	25.0	0.
Commercial printing	0.	0.	3.1	0.	51.2	15.5	0.	0.
Manifold business forms	0.	0.	0.	13.5	53.8	19.2	0.	5.8
Greeting card publishing	0.	0.	0.	0.	88.3	20.0	0.	0.
Chemicals	0.	0.	0.	3.4	38.3	8.8	2.4	1.0
Industrial inorganic chemicals	0.	0.	0.	2.4	39.3	13.7	2.7	1.3
Plastics materials and synthetics	0.	0.	0.	2.8	42.1	13.2	4.1	1.9
Drugs	0.	0.	0.	5.2	37.7	2.7	1.0	0.
Soaps, cleaners, and toilet goods	0.	0.	0.	4.2	33.6	4.3	1.8	1.4
Paints and allied products	0.	0.	0.	.9	33.1	1.7	0.	0.
Industrial organic chemicals	0.	0.	0.	3.4	37.5	10.1	2.9	1.0
Agricultural chemicals	0.	0.	0.	1.9	38.5	8.9	3.3	1.7
Misc. chemical products	0.	0.	0.	1.3	39.1	12.4	2.2	1.5
Refined petroleum products	0.	0.	0.	5.8	33.0	12.5	3.7	2.2
Petroleum refining	0.	0.	0.	6.1	32.9	13.1	4.0	2.3
Paving and roofing materials	0.	0.	0.	0.	37.9	6.1	0.	0.
Misc. petroleum and coal products	0.	0.	0.	1.5	30.9	0.	0.	0.
Rubber and plastic products	0.	0.	.2	1.3	51.0	20.7	6.8	0.
Tires and inner tubes	0.	0.	0.	3.9	55.1	19.4	2.5	0.
Rubber and plastic hose and belting	0.	0.	0.	0.	48.4	8.7	4.8	0.
Fabricated rubber products, n.e.c.	0.	0.	0.	2.0	48.2	19.7	5.4	0.
Misc. plastic products	0.	0.	.3	0.	50.4	23.1	9.7	0.
Leather products	0.	0.	0.	0.	39.6	6.2	0.	0.
Footwear, except rubber	0.	0.	0.	0.	38.8	8.2	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Transportation, communications, public utilities	0.	0.	0.	5.5	51.3	36.6	6.6	16.8
Transportation, except railroads	0.	0.	0.	9.1	67.3	19.0	.7	8.5
Trucking and warehousing	0.	0.	0.	24.7	50.0	4.0	0.	0.
Water transportation	0.	0.	0.	2.3	84.2	17.4	0.	0.
Air transportation	0.	0.	0.	16.7	51.5	17.7	0.	14.2
Pipelines, except natural gas	0.	0.	0.	.6	53.2	50.6	7.3	42.6
Transportation services	0.	0.	0.	16.4	59.1	6.1	0.	0.
Communication	0.	0.	.0	5.3	43.1	36.0	6.5	22.7
Telephone	0.	0.	.0	5.9	47.0	40.0	7.8	24.6
Radio and TV broadcasting	0.	0.	0.	2.7	24.3	16.7	0.	13.6
Electric, gas and sanitary services	0.	0.	0.	4.5	54.1	42.3	8.5	13.8
Wholesale and retail trade	0.	0.	.1	12.7	64.1	47.0	2.8	43.5
Wholesale trade	0.	0.	.0	13.1	62.7	49.5	2.3	46.6
Durable goods wholesalers	0.	0.	.0	12.6	64.2	55.0	2.5	52.1
Nondurable goods wholesalers	0.	0.	.1	16.9	50.7	7.3	.8	4.8
Retail trade	0.	0.	1.2	7.2	81.9	16.9	8.6	6.4
Building materials and garden supplies	0.	0.	0.	3.6	91.6	76.5	74.5	2.0
General merchandise stores	0.	0.	1.9	8.4	78.2	6.3	4.2	.8
Food stores	0.	0.	6.9	19.6	54.5	11.1	3.9	0.
Auto dealers and service stations	0.	0.	.7	1.6	91.9	12.0	1.8	8.8
Furniture and home furnishing stores	0.	0.	.2	.6	93.5	63.2	12.6	50.5
Eating and drinking places	0.	0.	0.	13.5	80.3	11.4	0.	0.
Misc. retail stores	0.	0.	.0	4.5	86.8	9.7	4.4	4.2
Finance, insurance and real estate	0.	0.	.2	32.0	44.2	4.2	2.4	0.
Banking	0.	0.	0.	46.1	46.4	1.1	0.	0.
Federal Reserve banks	0.	0.	0.	42.0	33.6	0.	0.	0.
Commercial and stock saving banks	0.	0.	0.	46.5	47.6	1.2	0.	0.
Mutual savings banks	0.	0.	0.	35.3	64.7	0.	0.	0.
Other credit agencies	0.	0.	0.	39.4	57.3	0.	0.	0.
Personal credit institutions	0.	0.	0.	33.7	66.3	0.	0.	0.
Security and commodity brokers and dealers	0.	0.	2.8	37.7	33.5	0.	0.	0.
Security brokers and dealers	0.	0.	0.	37.2	39.6	0.	0.	0.
Security and commodity services	0.	0.	0.	43.5	26.9	0.	0.	0.
Insurance	0.	0.	0.	29.2	42.5	.9	.5	0.
Life insurance	0.	0.	0.	28.3	45.4	.4	.4	0.
Medical services and health insurance	0.	0.	0.	43.6	40.8	0.	0.	0.
Fire, marine and casualty insurance	0.	0.	0.	23.6	42.0	0.	0.	0.
Insurance agents, brokers, and service	0.	0.	0.	15.3	31.8	3.5	1.2	0.
Real estate	0.	0.	0.	5.9	53.1	40.2	24.7	0.
Real estate operators and lessors	0.	0.	0.	6.0	45.2	36.9	22.6	0.
Subdividers and developers	0.	0.	0.	9.1	56.4	44.5	25.5	0.
Investment and holding companies	0.	0.	14.3	19.7	29.6	8.9	0.	0.
Holding company offices	0.	0.	0.	31.8	44.1	10.8	0.	0.
Misc. investing	0.	0.	22.5	0.	7.9	7.9	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Services	.4	.1	.8	7.3	55.1	39.4	18.9	7.6
Hotels, motels, and lodging places	0.	0.	0.	0.	51.1	39.4	0.	0.
Business services	.7	0.	.7	14.2	51.4	23.2	7.8	9.9
Advertising	0.	0.	0.	13.7	35.3	9.8	0.	0.
Mailing, reproduction, etc. services	0.	0.	0.	21.7	78.3	21.7	21.7	0.
Personnel supply services	0.	0.	0.	5.1	73.7	51.0	42.4	0.
Computer and data processing services	0.	0.	.2	30.1	61.7	10.7	.7	8.9
Misc. business services	1.0	0.	1.0	7.9	45.3	26.6	8.3	11.1
Repair services	0.	0.	0.	0.	98.4	96.5	2.9	92.6
Electrical repair services	0.	0.	0.	0.	99.2	98.8	0.	98.4
Misc. repair services	0.	0.	0.	0.	96.5	91.2	9.8	78.9
Motion pictures	0.	0.	0.	4.1	82.6	78.0	0.	45.8
Motion picture production	0.	0.	0.	5.7	80.9	74.5	0.	44.6
Other services	.3	.1	.9	2.1	56.1	49.7	28.6	2.0
Medical and dental laboratories	0.	0.	0.	0.	49.5	0.	0.	0.
Job training and vocational rehabilitation	0.	0.	63.6	0.	22.7	22.7	0.	0.
Business associations	0.	0.	2.5	0.	71.7	59.8	0.	0.
Professional membership organizations	0.	0.	0.	0.	60.6	7.0	0.	0.
Civic, social and fraternal organizations	0.	39.8	10.8	0.	6.0	0.	0.	0.
Religious organizations	0.	0.	0.	0.	100.0	0.	0.	0.
Engineering and architectural services	0.	0.	.1	.9	57.6	55.1	33.9	2.1
Noncommercial educational, scientific and research organizations	2.1	0.	5.8	2.8	50.0	25.0	.6	3.1
Accounting, auditing and bookkeeping	0.	0.	0.	48.6	43.6	3.6	0.	0.
Services, n.e.c.	6.0	0.	1.2	2.0	23.3	10.6	4.0	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Total	1.2	1.5	.1	1.0	.1	6.7	4.0	.8
Mining	2.2	0.	0.	0.	2.7	8.1	4.7	0.
Metallic minerals	3.5	0.	0.	0.	0.	8.3	10.6	0.
Iron ore	7.9	0.	0.	0.	0.	7.9	10.5	0.
Copper ore	4.3	0.	0.	0.	0.	6.1	10.0	0.
Lead and zinc ores	0.	0.	0.	0.	0.	20.8	10.4	0.
Ferroalloy ores, except vanadium	0.	0.	0.	0.	0.	0.	12.0	0.
Metal mining services	0.	0.	0.	0.	0.	13.9	6.3	0.
Misc. metallic ores	5.3	0.	0.	0.	0.	6.4	12.8	0.
Coal	10.1	0.	0.	0.	0.	8.2	3.5	0.
Bituminous and lignite	10.1	0.	0.	0.	0.	8.2	3.5	0.
Oil and gas extraction	1.1	0.	0.	0.	3.4	8.0	3.5	0.
Crude petroleum and natural gas	.5	0.	0.	0.	1.6	9.0	4.2	0.
Oil and gas services	2.9	0.	0.	0.	8.2	4.9	1.3	0.
Nonmetallic mineral mining	2.1	0.	0.	0.	0.	10.6	19.4	0.
Crushed and broken stone	0.	0.	0.	0.	0.	18.8	12.5	0.
Clay, ceramic, etc., minerals	0.	0.	0.	0.	0.	10.0	40.0	0.
Chemical and fertilizer minerals	4.3	0.	0.	0.	0.	7.8	19.9	0.
Construction	3.3	0.	0.	0.	0.	3.0	0.	0.
General building contractors	3.9	0.	0.	0.	0.	3.1	0.	0.
Residential building contractors	4.1	0.	0.	0.	0.	1.2	0.	0.
Operative builders	0.	0.	0.	0.	0.	0.	0.	0.
Nonresidential building contractors	4.0	0.	0.	0.	0.	4.1	0.	0.
Other construction contractors	6.0	0.	0.	0.	0.	4.9	0.	0.
Highway and street construction	25.3	0.	0.	0.	0.	6.3	0.	0.
Heavy construction except highway	4.4	0.	0.	0.	0.	4.8	0.	0.
Special trade contractors	0.	0.	0.	0.	0.	.7	0.	0.
Plumbing, heating, air conditioning	0.	0.	0.	0.	0.	1.6	0.	0.
Electrical work	0.	0.	0.	0.	0.	0.	0.	0.
Roofing, sheet metal work	0.	0.	0.	0.	0.	0.	0.	0.
Concrete work	0.	0.	0.	0.	0.	0.	0.	0.
Misc. special trade contractors	0.	0.	0.	0.	0.	2.8	0.	0.
Manufacturing	0.	2.6	0.	0.	0.	8.5	5.7	1.3
Durable goods manufacturing	0.	3.3	0.	0.	0.	9.0	1.1	0.
Lumber and wood products	0.	0.	0.	0.	0.	8.1	8.6	0.
Logging camps and contractors	0.	0.	0.	0.	0.	17.4	34.8	0.
Sawmills and planing mills	0.	0.	0.	0.	0.	12.2	12.2	0.
Millwork, and related products	0.	0.	0.	0.	0.	5.4	5.9	0.
Wood buildings and mobile homes	0.	0.	0.	0.	0.	6.0	0.	0.
Misc. wood products	0.	0.	0.	0.	0.	4.9	14.8	0.
Furniture and fixtures	0.	0.	0.	0.	0.	10.6	0.	0.
Household furniture	0.	0.	0.	0.	0.	13.2	0.	0.
Office furniture	0.	0.	0.	0.	0.	8.8	0.	0.
Public building furniture	0.	0.	0.	0.	0.	11.1	0.	0.
Partitions and fixtures	0.	0.	0.	0.	0.	6.5	0.	0.
Misc. furniture and fixtures	0.	0.	0.	0.	0.	11.5	0.	0.
Stone, clay and glass products	0.	2.5	0.	0.	0.	10.6	12.1	0.
Flat glass	0.	0.	0.	0.	0.	18.6	0.	0.
Glass and glassware, pressed or blown	0.	3.8	0.	0.	0.	6.5	10.8	0.
Products of purchased glass	0.	0.	0.	0.	0.	15.4	0.	0.
Hydraulic cement	0.	0.	0.	0.	0.	8.9	18.3	0.
Structural clay products	0.	0.	0.	0.	0.	13.8	6.9	0.
Pottery and related products	0.	0.	0.	0.	0.	20.2	16.0	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	0.	11.1	7.0	0.
Misc. nonmetallic mineral products	0.	5.0	0.	0.	0.	10.3	15.9	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Primary metals	0.	1.2	0.	0.	0.	19.4	1.8	0.
Blast furnace and primary steel products	0.	0.	0.	0.	0.	21.1	2.2	0.
Iron and steel foundries	0.	3.0	0.	0.	0.	21.0	0.	0.
Primary nonferrous metals	0.	0.	0.	0.	0.	17.0	3.3	0.
Secondary nonferrous metals	0.	0.	0.	0.	0.	14.7	5.9	0.
Nonferrous rolling and drawing	0.	3.2	0.	0.	0.	15.3	1.3	0.
Nonferrous foundries	0.	0.	0.	0.	0.	25.9	0.	0.
Misc. primary metal products	0.	0.	0.	0.	0.	26.7	0.	0.
Fabricated metal products	0.	2.7	0.	0.	0.	9.2	.1	0.
Metal cans and shipping containers	0.	0.	0.	0.	0.	7.1	0.	0.
Cutlery, handtools, and hardware	0.	3.6	0.	0.	0.	8.9	0.	0.
Plumbing and heating products	0.	3.1	0.	0.	0.	8.4	0.	0.
Fabricated structural metal products	0.	2.4	0.	0.	0.	6.0	0.	0.
Screw machine products, bolts, etc.	0.	5.3	0.	0.	0.	12.3	0.	0.
Metal forgings and stampings	0.	0.	0.	0.	0.	16.9	0.	0.
Coating, engraving and allied services	0.	0.	0.	0.	0.	8.8	2.7	0.
Ordnance and accessories	0.	4.5	0.	0.	0.	15.1	0.	0.
Misc. fabricated metal products	0.	3.3	0.	0.	0.	11.1	0.	0.
Machinery	0.	3.5	0.	0.	0.	9.3	.1	0.
Engines and turbines	0.	6.4	0.	0.	0.	15.2	0.	0.
Farm and garden machinery	0.	3.7	0.	0.	0.	25.0	0.	0.
Construction and related machinery	0.	7.2	0.	0.	0.	10.3	0.	0.
Metalworking machinery	0.	2.3	0.	0.	0.	10.8	0.	0.
Special industry machinery	0.	0.	0.	0.	0.	22.2	1.3	0.
General industrial machinery	0.	7.8	0.	0.	0.	10.5	.2	0.
Office and computing machines	0.	1.5	0.	0.	0.	5.0	0.	0.
Refrigeration and service industry machinery	0.	7.9	0.	0.	0.	8.2	.4	0.
Misc. machinery	0.	3.3	0.	0.	0.	12.0	0.	0.
Electrical machinery	0.	2.5	0.	0.	0.	5.8	.8	0.
Electrical distribution equipment	0.	2.8	0.	0.	0.	4.8	0.	0.
Electrical industrial apparatus	0.	3.3	0.	0.	0.	7.3	.8	0.
Household appliances	0.	6.3	0.	0.	0.	9.3	6.2	0.
Electrical lighting and wiring equipment	0.	3.4	0.	0.	0.	7.9	1.7	0.
Radio and TV receiving equipment	0.	3.7	0.	0.	0.	3.8	0.	0.
Communications equipment	0.	1.9	0.	0.	0.	3.6	.4	0.
Electronic components and accessories	0.	2.5	0.	0.	0.	9.0	.9	0.
Misc. electrical equipment	0.	4.1	0.	0.	0.	8.8	2.6	0.
Transportation equipment	0.	5.4	0.	0.	0.	11.2	.8	0.
Motor vehicles and equipment	0.	7.6	0.	0.	0.	14.3	.3	0.
Aircraft and parts	0.	7.4	0.	0.	0.	8.0	1.2	0.
Ship and boat building and repairing	0.	0.	0.	0.	0.	10.1	1.1	0.
Railroad equipment	0.	3.2	0.	0.	0.	12.4	0.	0.
Guided missiles and space vehicles	0.	0.	0.	0.	0.	17.6	0.	0.
Misc. transportation equipment	0.	4.4	0.	0.	0.	13.1	0.	0.
Instruments	0.	3.0	0.	0.	0.	7.3	3.4	0.
Engineering and scientific instruments	0.	2.9	0.	0.	0.	4.8	1.0	0.
Measuring and controlling instruments	0.	2.5	0.	0.	0.	8.5	.3	0.
Optical instruments and lenses	0.	4.3	0.	0.	0.	16.6	1.7	0.
Medical instruments and supplies	0.	3.8	0.	0.	0.	5.6	14.2	0.
Ophthalmic goods	0.	0.	0.	0.	0.	11.8	0.	0.
Photographic equipment and supplies	0.	3.1	0.	0.	0.	4.8	7.3	0.
Watches, clocks, and watchcases	0.	6.5	0.	0.	0.	2.6	0.	0.
Miscellaneous manufacturing	0.	0.	0.	0.	0.	12.9	5.2	0.
Musical instruments and parts	0.	0.	0.	0.	0.	7.9	0.	0.
Toys and sporting goods	0.	0.	0.	0.	0.	11.9	5.1	0.
Pens, pencils, office and art supplies	0.	0.	0.	0.	0.	9.7	19.4	0.
Costume jewelry and notions	0.	0.	0.	0.	0.	22.2	3.0	0.
Misc. manufacturers	0.	0.	0.	0.	0.	11.4	4.4	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Nondurable goods	0.	0.	0.	0.	0.	6.8	22.7	6.2
Food and food products	0.	0.	0.	0.	0.	3.4	41.6	37.9
Meat products	0.	0.	0.	0.	0.	0.	64.9	64.9
Dairy products	0.	0.	0.	0.	0.	4.9	79.3	79.3
Canned and preserved fruits and vegetables	0.	0.	0.	0.	0.	5.9	49.5	39.2
Grain mill products	0.	0.	0.	0.	0.	0.	38.2	29.4
Bakery products	0.	0.	0.	0.	0.	12.2	47.6	47.6
Sugar and confectionery products	0.	0.	0.	0.	0.	7.7	24.8	24.8
Fats and oils	0.	0.	0.	0.	0.	0.	10.7	10.7
Beverages	0.	0.	0.	0.	0.	3.1	44.4	41.3
Misc. food and kindred products	0.	0.	0.	0.	0.	1.9	25.8	25.8
Tobacco manufactures	0.	0.	0.	0.	0.	13.3	0.	0.
Cigarettes	0.	0.	0.	0.	0.	13.6	0.	0.
Textiles	0.	0.	0.	0.	0.	8.3	38.5	0.
Weaving mills, cotton	0.	0.	0.	0.	0.	6.7	23.9	0.
Weaving mills, synthetics	0.	0.	0.	0.	0.	6.3	17.1	0.
Knitting mills	0.	0.	0.	0.	0.	7.6	26.5	0.
Textile finishing, except wools	0.	0.	0.	0.	0.	4.7	55.4	0.
Floor covering mills	0.	0.	0.	0.	0.	8.9	58.8	0.
Yarn and thread mills	0.	0.	0.	0.	0.	14.5	26.4	0.
Misc. textile goods	0.	0.	0.	0.	0.	11.2	30.9	0.
Apparel	0.	0.	0.	0.	0.	8.5	4.3	0.
Men's and boys' furnishings	0.	0.	0.	0.	0.	8.9	1.3	0.
Women's and misses' outerwear	0.	0.	0.	0.	0.	5.7	2.3	0.
Women's and children's undergarments	0.	0.	0.	0.	0.	5.8	15.4	0.
Misc. fabricated textiles	0.	0.	0.	0.	0.	14.6	7.8	0.
Paper and allied products	0.	0.	0.	0.	0.	11.0	8.6	0.
Pulp mills	0.	0.	0.	0.	0.	3.6	0.	0.
Paper mills, except building paper	0.	0.	0.	0.	0.	9.4	13.0	0.
Paperboard mills	0.	0.	0.	0.	0.	12.6	5.2	0.
Misc. converted paper products	0.	0.	0.	0.	0.	13.2	8.5	0.
Paperboard containers and boxes	0.	0.	0.	0.	0.	13.2	0.	0.
Printing and publishing	0.	0.	0.	0.	0.	10.6	.3	0.
Newspapers	0.	0.	0.	0.	0.	3.7	0.	0.
Periodicals	0.	0.	0.	0.	0.	13.3	0.	0.
Books	0.	0.	0.	0.	0.	7.2	0.	0.
Misc. publishing	0.	0.	0.	0.	0.	0.	0.	0.
Commercial printing	0.	0.	0.	0.	0.	15.5	2.3	0.
Manifold business forms	0.	0.	0.	0.	0.	13.5	0.	0.
Greeting card publishing	0.	0.	0.	0.	0.	20.0	0.	0.
Chemicals	0.	0.	0.	0.	0.	5.4	23.6	5.5
Industrial inorganic chemicals	0.	0.	0.	0.	0.	9.7	20.4	3.7
Plastics materials and synthetics	0.	0.	0.	0.	0.	7.3	19.0	1.9
Drugs	0.	0.	0.	0.	0.	1.7	30.0	14.1
Soaps, cleaners, and toilet goods	0.	0.	0.	0.	0.	1.2	21.7	6.0
Paints and allied products	0.	0.	0.	0.	0.	1.7	24.3	1.2
Industrial organic chemicals	0.	0.	0.	0.	0.	6.3	23.7	1.5
Agricultural chemicals	0.	0.	0.	0.	0.	4.0	19.5	4.2
Misc. chemical products	0.	0.	0.	0.	0.	8.7	21.6	3.0
Refined petroleum products	0.	0.	0.	0.	0.	6.6	15.1	0.
Petroleum refining	0.	0.	0.	0.	0.	6.8	14.7	0.
Paving and roofing materials	0.	0.	0.	0.	0.	6.1	19.7	0.
Misc. petroleum and coal products	0.	0.	0.	0.	0.	0.	23.5	0.
Rubber and plastic products	0.	0.	0.	0.	0.	13.9	21.3	0.
Tires and inner tubes	0.	0.	0.	0.	0.	16.9	27.4	0.
Rubber and plastic hose and belting	0.	0.	0.	0.	0.	4.0	15.9	0.
Fabricated rubber products, n.e.c.	0.	0.	0.	0.	0.	14.3	20.6	0.
Misc. plastic products	0.	0.	0.	0.	0.	13.4	19.5	0.
Leather products	0.	0.	0.	0.	0.	6.2	6.7	0.
Footwear, except rubber	0.	0.	0.	0.	0.	8.2	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Transportation, communications, public utilities	1.1	0.	0.	0.	0.	12.1	1.0	0.
Transportation, except railroads	2.4	0.	0.	0.	0.	7.5	1.5	0.
Trucking and warehousing	0.	0.	0.	0.	0.	4.0	.3	0.
Water transportation	5.1	0.	0.	0.	0.	12.3	.7	0.
Air transportation	0.	0.	0.	0.	0.	3.5	3.7	0.
Pipelines, except natural gas	0.	0.	0.	0.	0.	.7	.5	0.
Transportation services	0.	0.	0.	0.	0.	6.1	.2	0.
Communication	0.	0.	0.	0.	0.	6.8	.0	0.
Telephone	0.	0.	0.	0.	0.	7.6	.0	0.
Radio and TV broadcasting	0.	0.	0.	0.	0.	3.2	.1	0.
Electric, gas and sanitary services	1.6	0.	0.	0.	0.	18.3	1.7	0.
Wholesale and retail trade	0.	0.	0.	0.	0.	.8	.8	0.
Wholesale trade	0.	0.	0.	0.	0.	.7	.9	0.
Durable goods wholesalers	0.	0.	0.	0.	0.	.5	.2	0.
Nondurable goods wholesalers	0.	0.	0.	0.	0.	1.7	6.1	0.
Retail trade	0.	0.	0.	0.	0.	2.0	.4	0.
Building materials and garden supplies	0.	0.	0.	0.	0.	0.	.3	0.
General merchandise stores	0.	0.	0.	0.	0.	1.3	0.	0.
Food stores	0.	0.	0.	0.	0.	7.2	1.9	0.
Auto dealers and service stations	0.	0.	0.	0.	0.	1.4	0.	0.
Furniture and home furnishing stores	0.	0.	0.	0.	0.	0.	0.	0.
Eating and drinking places	0.	0.	0.	0.	0.	11.4	0.	0.
Misc. retail stores	0.	0.	0.	0.	0.	1.1	1.2	0.
Finance, insurance and real estate	.4	0.	0.	0.	0.	1.4	0.	0.
Banking	0.	0.	0.	0.	0.	1.1	0.	0.
Federal Reserve banks	0.	0.	0.	0.	0.	0.	0.	0.
Commercial and stock saving banks	0.	0.	0.	0.	0.	1.2	0.	0.
Mutual savings banks	0.	0.	0.	0.	0.	0.	0.	0.
Other credit agencies	0.	0.	0.	0.	0.	0.	0.	0.
Personal credit institutions	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity brokers and dealers	0.	0.	0.	0.	0.	0.	0.	0.
Security brokers and dealers	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity services	0.	0.	0.	0.	0.	0.	0.	0.
Insurance	0.	0.	0.	0.	0.	.4	0.	0.
Life insurance	0.	0.	0.	0.	0.	0.	0.	0.
Medical services and health insurance	0.	0.	0.	0.	0.	0.	0.	0.
Fire, marine and casualty insurance	0.	0.	0.	0.	0.	0.	0.	0.
Insurance agents, brokers, and service	0.	0.	0.	0.	0.	2.3	0.	0.
Real estate	4.4	0.	0.	0.	0.	11.1	0.	0.
Real estate operators and lessors	0.	0.	0.	0.	0.	14.3	0.	0.
Subdividers and developers	10.0	0.	0.	0.	0.	9.1	0.	0.
Investment and holding companies	0.	0.	0.	0.	0.	8.9	0.	0.
Holding company offices	0.	0.	0.	0.	0.	10.8	0.	0.
Misc. investing	0.	0.	0.	0.	0.	7.9	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Services	3.4	.8	.2	3.9	0.	4.5	3.5	.5
Hotels, motels, and lodging places	0.	0.	0.	0.	0.	39.4	0.	0.
Business services	0.	1.9	0.	0.	0.	3.6	5.2	0.
Advertising	0.	0.	0.	0.	0.	9.8	0.	0.
Mailing, reproduction, etc. services	0.	0.	0.	0.	0.	0.	0.	0.
Personnel supply services	0.	0.	0.	0.	0.	8.6	0.	0.
Computer and data processing services	0.	.2	0.	0.	0.	1.0	0.	0.
Misc. business services	0.	2.7	0.	0.	0.	4.4	7.9	0.
Repair services	0.	0.	0.	0.	0.	1.1	0.	0.
Electrical repair services	0.	0.	0.	0.	0.	.4	0.	0.
Misc. repair services	0.	0.	0.	0.	0.	2.5	0.	0.
Motion pictures	0.	0.	0.	0.	0.	32.2	0.	0.
Motion picture production	0.	0.	0.	0.	0.	29.9	0.	0.
Other services	6.3	0.	.4	7.3	0.	5.0	2.4	1.0
Medical and dental laboratories	0.	0.	0.	0.	0.	0.	0.	0.
Job training and vocational rehabilitation	0.	0.	0.	0.	0.	22.7	0.	0.
Business associations	0.	0.	0.	0.	0.	59.8	3.1	0.
Professional membership organizations	0.	0.	0.	0.	0.	7.0	0.	0.
Civic, social and fraternal organizations	0.	0.	0.	0.	0.	0.	0.	0.
Religious organizations	0.	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	7.6	0.	.5	8.7	0.	2.4	.8	.0
Noncommercial educational, scientific and research organizations	0.	0.	0.	0.	0.	21.3	16.7	9.9
Accounting, auditing and bookkeeping	0.	0.	0.	0.	0.	3.6	0.	0.
Services, n.e.c.	0.	0.	0.	0.	0.	6.6	4.0	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Total	3.2	7.1	4.0
Mining	4.7	2.8	3.2
Metallic minerals	10.6	0.	5.5
Iron ore	10.5	0.	5.3
Copper ore	10.0	0.	9.6
Lead and zinc ores	10.4	0.	4.2
Ferroalloy ores, except vanadium	12.0	0.	10.0
Metal mining services	6.3	0.	2.5
Misc. metallic ores	12.8	0.	4.3
Coal	3.5	2.8	3.5
Bituminous and lignite	3.5	2.8	3.4
Oil and gas extraction	3.5	3.2	2.4
Crude petroleum and natural gas	4.2	3.1	2.3
Oil and gas services	1.3	3.6	2.5
Nonmetallic mineral mining	19.4	0.	12.6
Crushed and broken stone	12.5	0.	12.5
Clay, ceramic, etc., minerals	40.0	0.	6.7
Chemical and fertilizer minerals	19.9	0.	8.5
Construction	0.	1.3	2.5
General building contractors	0.	2.1	3.9
Residential building contractors	0.	1.6	.7
Operative builders	0.	0.	6.8
Nonresidential building contractors	0.	2.4	5.0
Other construction contractors	0.	1.9	2.6
Highway and street construction	0.	3.3	5.2
Heavy construction except highway	0.	1.8	2.4
Special trade contractors	0.	.2	1.5
Plumbing, heating, air conditioning	0.	0.	.9
Electrical work	0.	0.	.2
Roofing, sheet metal work	0.	0.	0.
Concrete work	0.	0.	5.5
Misc. special trade contractors	0.	1.7	5.7
Manufacturing	4.4	4.4	4.2
Durable goods manufacturing	1.1	4.5	3.7
Lumber and wood products	8.6	2.1	7.4
Logging camps and contractors	34.8	0.	4.3
Sawmills and planing mills	12.2	0.	12.2
Millwork, and related products	5.9	5.9	2.9
Wood buildings and mobile homes	0.	0.	8.3
Misc. wood products	14.8	0.	8.2
Furniture and fixtures	0.	8.4	6.3
Household furniture	0.	12.1	9.8
Office furniture	0.	10.0	5.0
Public building furniture	0.	0.	4.4
Partitions and fixtures	0.	3.2	1.6
Misc. furniture and fixtures	0.	9.6	5.8
Stone, clay and glass products	12.7	3.3	7.3
Flat glass	0.	7.1	14.3
Glass and glassware, pressed or blown	10.8	3.3	12.5
Products of purchased glass	0.	0.	12.3
Hydraulic cement	18.3	3.9	2.8
Structural clay products	6.9	4.6	5.7
Pottery and related products	16.0	4.2	3.4
Concrete, gypsum, and plaster products	7.0	0.	8.6
Misc. nonmetallic mineral products	15.0	4.2	5.1

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Primary metals	1.8	3.2	8.0
Blast furnace and primary steel products	2.2	3.9	8.1
Iron and steel foundries	0.	3.0	6.5
Primary nonferrous metals	3.3	1.5	9.0
Secondary nonferrous metals	5.9	2.0	15.7
Nonferrous rolling and drawing	1.3	3.7	7.5
Nonferrous foundries	0.	0.	5.3
Misc. primary metal products	0.	0.	10.7
Fabricated metal products	.1	3.1	4.5
Metal cans and shipping containers	0.	0.	11.9
Cutlery, handtools, and hardware	0.	5.5	5.0
Plumbing and heating products	0.	5.3	3.7
Fabricated structural metal products	0.	2.2	3.1
Screw machine products, bolts, etc.	0.	5.8	2.5
Metal forgings and stampings	0.	3.6	7.1
Coating, engraving and allied services	2.7	0.	13.3
Ordnance and accessories	0.	1.8	8.3
Misc. fabricated metal products	0.	4.6	3.8
Machinery	.1	8.9	2.6
Engines and turbines	0.	3.9	4.6
Farm and garden machinery	0.	4.6	2.8
Construction and related machinery	0.	2.8	4.2
Metalworking machinery	0.	2.4	2.3
Special industry machinery	1.3	2.0	2.3
General industrial machinery	.2	2.8	2.6
Office and computing machines	0.	16.0	1.8
Refrigeration and service industry machinery	.4	2.9	3.2
Misc. machinery	0.	0.	5.3
Electrical machinery	.8	2.6	2.8
Electrical distribution equipment	0.	2.3	2.3
Electrical industrial apparatus	.8	3.2	3.0
Household appliances	6.2	4.1	3.8
Electrical lighting and wiring equipment	1.7	4.2	2.1
Radio and TV receiving equipment	0.	2.9	3.6
Communications equipment	.4	2.2	3.3
Electronic components and accessories	.9	2.8	1.2
Misc. electrical equipment	2.6	2.4	5.7
Transportation equipment	.8	1.9	4.1
Motor vehicles and equipment	.3	3.3	3.3
Aircraft and parts	1.2	2.3	3.9
Ship and boat building and repairing	1.1	1.6	12.8
Railroad equipment	0.	2.9	2.1
Guided missiles and space vehicles	0.	0.	3.6
Misc. transportation equipment	0.	3.3	5.5
Instruments	3.4	4.8	5.6
Engineering and scientific instruments	1.0	10.3	4.8
Measuring and controlling instruments	.3	2.8	1.1
Optical instruments and lenses	1.7	3.3	2.7
Medical instruments and supplies	14.2	3.2	19.4
Ophthalmic goods	0.	10.3	16.2
Photographic equipment and supplies	7.3	2.2	8.0
Watches, clocks, and watchcases	0.	5.2	10.4
Miscellaneous manufacturing	5.2	7.3	4.5
Musical instruments and parts	0.	4.5	1.1
Toys and sporting goods	5.1	9.8	2.6
Pens, pencils, office and art supplies	19.4	6.5	1.6
Costume jewelry and notions	3.0	10.1	4.0
Misc. manufacturers	4.4	3.3	8.1

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Nondurable goods	16.5	4.2	6.1
Food and food products	3.7	3.0	9.9
Meat products	0.	0.	12.9
Dairy products	0.	0.	8.5
Canned and preserved fruits and vegetables	10.3	9.5	12.1
Grain mill products	8.9	0.	6.3
Bakery products	0.	0.	28.0
Sugar and confectionery products	0.	4.0	10.7
Fats and oils	0.	0.	7.1
Beverages	3.1	7.0	3.8
Misc. food and kindred products	0.	0.	13.1
Tobacco manufactures	0.	5.9	53.1
Cigarettes	0.	7.0	52.6
Textiles	38.5	7.7	13.6
Weaving mills, cotton	23.9	8.2	12.7
Weaving mills, synthetics	17.1	0.	32.7
Knitting mills	26.5	12.3	10.4
Textile finishing, except wools	55.4	0.	9.4
Floor covering mills	58.8	16.0	10.7
Yarn and thread mills	26.4	0.	10.9
Misc. textile goods	30.9	3.9	8.5
Apparel	4.3	13.2	14.2
Men's and boys' furnishings	1.3	19.7	12.7
Women's and misses' outerwear	2.3	0.	26.4
Women's and children's undergarments	15.4	15.4	11.5
Misc. fabricated textiles	7.8	10.7	4.9
Paper and allied products	8.6	4.8	8.1
Pulp mills	0.	0.	16.7
Paper mills, except building paper	13.0	3.9	7.9
Paperboard mills	5.2	3.1	5.8
Misc. converted paper products	8.5	6.8	8.2
Paperboard containers and boxes	0.	9.3	6.6
Printing and publishing	.3	26.3	15.0
Newspapers	0.	25.9	4.1
Periodicals	0.	40.7	6.7
Books	0.	37.8	16.2
Misc. publishing	0.	26.2	15.5
Commercial printing	2.3	23.3	10.1
Manifold business forms	0.	15.4	19.2
Greeting card publishing	0.	0.	68.3
Chemicals	18.2	2.5	3.5
Industrial inorganic chemicals	16.7	1.6	3.7
Plastics materials and synthetics	17.1	2.5	7.4
Drugs	16.0	2.5	2.6
Soaps, cleaners, and toilet goods	15.7	5.0	2.6
Paints and allied products	23.1	2.2	4.8
Industrial organic chemicals	22.2	2.4	1.3
Agricultural chemicals	15.4	2.7	7.3
Misc. chemical products	18.6	2.8	2.3
Refined petroleum products	15.1	3.3	2.1
Petroleum refining	14.7	3.3	1.8
Paving and roofing materials	19.7	3.0	9.1
Misc. petroleum and coal products	23.5	2.9	4.4
Rubber and plastic products	21.3	3.1	5.9
Tires and inner tubes	27.4	2.5	5.8
Rubber and plastic hose and belting	15.9	0.	23.8
Fabricated rubber products, n.e.c.	20.6	3.9	3.9
Misc. plastic products	19.5	3.4	4.4
Leather products	6.7	3.9	22.8
Footwear, except rubber	0.	0.	30.6

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Transportation, communications, public utilities	1.0	7.1	6.6
Transportation, except railroads	1.5	20.9	25.9
Trucking and warehousing	.3	41.0	4.7
Water transportation	.7	21.6	44.5
Air transportation	3.7	18.1	12.0
Pipelines, except natural gas	.5	2.1	0.
Transportation services	.2	32.2	20.6
Communications	.0	5.6	1.4
Telephone	.0	5.8	1.2
Radio and TV broadcasting	.1	5.0	2.5
Electric, gas and sanitary services	1.7	4.5	5.6
Wholesale and retail trade	.8	9.3	7.0
Wholesale trade	.9	8.5	3.7
Durable goods wholesalers	.2	6.2	2.8
Nondurable goods wholesalers	6.1	26.1	11.1
Retail trade	.4	18.6	45.9
Building materials and garden supplies	.3	9.4	5.5
General merchandise stores	0.	23.3	48.6
Food stores	1.9	36.0	5.5
Auto dealers and service stations	0.	3.4	76.5
Furniture and home furnishing stores	0.	6.8	23.5
Eating and drinking places	0.	21.4	47.6
Misc. retail stores	1.2	14.2	61.7
Finance, insurance and real estate	0.	40.0	0.
Banking	0.	45.3	0.
Federal Reserve banks	0.	33.6	0.
Commercial and stock saving banks	0.	46.5	0.
Mutual savings banks	0.	64.7	0.
Other credit agencies	0.	57.3	0.
Personal credit institutions	0.	66.3	0.
Security and commodity brokers and dealers	0.	33.5	0.
Security brokers and dealers	0.	39.6	0.
Security and commodity services	0.	26.9	0.
Insurance	0.	41.6	0.
Life insurance	0.	45.0	0.
Medical services and health insurance	0.	40.8	0.
Fire, marine and casualty insurance	0.	42.0	0.
Insurance agents, brokers, and service	0.	28.3	0.
Real estate	0.	12.9	0.
Real estate operators and lessors	0.	8.3	0.
Subdividers and developers	0.	11.8	0.
Investment and holding companies	0.	20.7	0.
Holding company offices	0.	33.3	0.
Misc. investing	0.	0.	0.

Table B-8.—Percent distribution of scientists, engineers, and technicians by industry: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Services	3.0	9.7	2.5
Hotels, motels, and lodging places	0.	11.7	0.
Business services	5.2	19.1	4.0
Advertising	0.	25.5	0.
Mailing, reproduction, etc. services	0.	56.7	0.
Personnel supply services	0.	5.5	17.3
Computer and data processing services	0.	49.8	1.3
Misc. business services	7.9	6.5	4.2
Repair services	0.	0.	1.9
Electrical repair services	0.	0.	.4
Misc. repair services	0.	0.	5.3
Motion pictures	0.	4.6	0.
Motion picture production	0.	6.4	0.
Other services	1.4	2.6	1.4
Medical and dental laboratories	0.	0.	49.5
Job training and vocational rehabilitation	0.	0.	0.
Business associations	3.1	1.3	7.4
Professional membership organizations	0.	8.5	45.1
Civic, social and fraternal organizations	0.	6.0	0.
Religious organizations	0.	100.0	0.
Engineering and architectural services	.8	1.2	.5
Noncommercial educational, scientific and research organizations	6.8	3.3	5.1
Accounting, auditing and bookkeeping	0.	36.2	3.8
Services, n.e.c.	4.0	2.6	6.0

[1] Less than .05.

Note: Components may not add to totals because of rounding. Industries with less than .05 thousand total SE&T employment are not shown separately.

Sources: Bureau of Labor Statistics and National Science Foundation

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mining	3.0	3.9	2.8	0.	2.1	1.1	.2	.3
Metallic minerals	.2	.3	.2	0.	0.	0.	0.	.0
Iron ore	.0	.0	.0	0.	0.	0.	0.	0.
Copper ore	.0	.1	.0	0.	0.	0.	0.	.0
Lead and zinc ores	.0	.0	.0	0.	0.	0.	0.	0.
Ferroalloy ores, except vanadium	.0	.0	.0	0.	0.	0.	0.	0.
Metal mining services	.0	.0	.0	0.	0.	0.	0.	0.
Misc. metallic ores	.1	.1	.1	0.	0.	0.	0.	0.
Coal	.3	.3	.4	0.	0.	.2	0.	.3
Bituminous and lignite	.3	.3	.4	0.	0.	.2	0.	.3
Oil and gas extraction	2.4	3.1	2.1	0.	1.9	.9	.2	0.
Crude petroleum and natural gas	1.7	2.3	1.4	0.	1.9	.7	.2	0.
Oil and gas services	.7	.8	.7	0.	0.	.2	0.	0.
Nonmetallic mineral mining	.1	.1	.1	0.	.3	.0	0.	0.
Crushed and broken stone	.0	.0	.0	0.	0.	.0	0.	0.
Clay, ceramic, etc., minerals	.0	.0	.0	0.	0.	0.	0.	0.
Chemical and fertilizer minerals	.1	.1	.0	0.	.3	0.	0.	0.
Construction	4.3	4.2	5.5	0.	0.	19.6	2.9	0.
General building contractors	.9	.9	1.2	0.	0.	5.5	.2	0.
Residential building contractors	.2	.2	.3	0.	0.	1.7	0.	0.
Operative builders	.0	.0	.0	0.	0.	.3	0.	0.
Nonresidential building contractors	.6	.7	.9	0.	0.	3.5	.2	0.
Other construction contractors	1.8	2.3	2.9	0.	0.	9.3	1.6	0.
Highway and street construction	.1	.2	.2	0.	0.	1.6	0.	0.
Heavy construction except highway	1.6	2.1	2.7	0.	0.	7.7	1.6	0.
Special trade contractors	1.6	1.0	1.4	0.	0.	4.8	1.1	0.
Plumbing, heating, air conditioning	.3	.3	.5	0.	0.	.9	0.	0.
Electrical work	1.0	.3	.4	0.	0.	.7	1.1	0.
Roofing, sheet metal work	.0	.0	.0	0.	0.	.3	0.	0.
Concrete work	.0	.1	.1	0.	0.	.5	0.	0.
Misc. special trade contractors	.2	.2	.3	0.	0.	1.8	0.	0.
Manufacturing	49.6	54.2	59.5	87.0	66.5	4.8	59.5	84.5
Durable goods manufacturing	39.1	42.6	51.6	87.0	8.9	2.9	58.1	71.2
Lumber and wood products	.2	.2	.1	0.	0.	0.	0.	.5
Logging camps and contractors	.0	.0	.0	0.	0.	0.	0.	0.
Sawmills and planing mills	.1	.1	.0	0.	0.	0.	0.	0.
Millwork, and related products	.1	.1	.0	0.	0.	0.	0.	.2
Wood buildings and mobile homes	.0	.0	.0	0.	0.	0.	0.	.1
Misc. wood products	.0	.0	.0	0.	0.	0.	0.	.1
Furniture and fixtures	.2	.2	.2	0.	0.	0.	0.	1.7
Household furniture	.1	.1	.1	0.	0.	0.	0.	.9
Office furniture	.0	.0	.0	0.	0.	0.	0.	.3
Public building furniture	.0	.0	.0	0.	0.	0.	0.	.1
Partitions and fixtures	.1	.0	.0	0.	0.	0.	0.	.3
Misc. furniture and fixtures	.0	.0	.0	0.	0.	0.	0.	.1
Stone, clay and glass products	.7	.7	.7	0.	1.5	.2	.2	1.3
Flat glass	.0	.0	.0	0.	0.	0.	.0	.0
Glass and glassware, pressed or blown	.1	.1	.1	0.	.2	0.	.1	.3
Products of purchased glass	.0	.0	.0	0.	0.	0.	0.	.1
Hydraulic cement	.1	.1	.1	0.	.1	.1	.0	.1
Structural clay products	.0	.0	.0	0.	0.	.0	.0	0.
Pottery and related products	.0	.0	.1	0.	0.	.1	.0	0.
Concrete, gypsum, and plaster products	.1	.1	.1	0.	.4	0.	0.	0.
Misc. nonmetallic mineral products	.2	.2	.3	0.	.7	0.	.0	.8

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Primary metals	1.6	1.7	1.9	0.	.9	.6	.8	3.8
Blast furnace and primary steel products	.7	.7	.8	0.	0.	.5	.2	1.9
Iron and steel foundries	.2	.2	.3	0.	0.	0.	0.	.7
Primary nonferrous metals	.1	.2	.2	0.	.3	.1	.1	0.
Secondary nonferrous metals	.0	.1	.0	0.	.1	0.	.0	.1
Nonferrous rolling and drawing	.4	.4	.5	0.	.5	0.	.4	1.0
Nonferrous foundries	.1	.1	.1	0.	0.	0.	0.	.2
Misc. primary metal products	.0	.0	.0	0.	0.	0.	0.	0.
Fabricated metal products	2.6	2.5	3.0	0.	.7	1.2	.5	6.1
Metal cans and shipping containers	.0	.1	.1	0.	0.	0.	0.	.2
Cutlery, handtools, and hardware	.2	.2	.3	0.	0.	0.	0.	.8
Plumbing and heating products	.1	.1	.2	0.	0.	0.	.0	.3
Fabricated structural metal products	1.2	1.0	1.2	0.	0.	1.1	.1	1.4
Screw machine products, bolts, etc.	.1	.1	.1	0.	0.	0.	0	.3
Metal forgings and stampings	.2	.2	.3	0.	0.	0.	0.	.9
Coating, engraving and allied services	.1	.1	.1	0.	.2	0.	0.	0.
Ordnance and accessories	.3	.3	.3	0.	.5	.1	.2	.9
Misc. fabricated metal products	.5	.4	.5	0.	0.	0.	.1	1.2
Machinery	10.5	9.7	11.9	0.	.5	.9	13.3	22.9
Engines and turbines	.6	.7	.8	0.	0.	0.	.2	1.3
Farm and garden machinery	.3	.3	.4	0.	0.	0.	0.	.8
Construction and related machinery	1.4	1.3	1.6	0.	0.	.9	.5	3.3
Metalworking machinery	1.0	.9	1.2	0.	0.	0.	.6	2.5
Special industry machinery	.7	.5	.7	0.	.5	0.	.4	1.3
General industrial machinery	1.1	1.1	1.3	0.	0.	0.	.5	2.9
Office and computing machines	4.9	4.4	5.1	0.	0.	0.	11.0	8.0
Refrigeration and service industry machinery	.4	.3	.4	0.	0.	0.	.1	1.0
Misc. machinery	.3	.3	.4	0.	0.	0.	.1	1.8
Electrical machinery	11.2	12.7	15.5	0.	4.0	0.	32.3	15.4
Electrical distribution equipment	.4	.4	.5	0.	0.	0.	.9	.9
Electrical industrial apparatus	.9	.8	1.1	0.	0.	0.	1.9	1.7
Household appliances	.3	.3	.3	0.	0.	0.	.2	.9
Electrical lighting and wiring equipment	.4	.4	.5	0.	0.	0.	.5	1.2
Radio and TV receiving equipment	.3	.3	.4	0.	0.	0.	.6	.5
Communications equipment	5.8	7.3	8.7	0.	1.3	0.	19.5	5.2
Electronic components and accessories	2.9	2.8	3.5	0.	2.2	0.	8.1	3.9
Misc. electrical equipment	.4	.5	.6	0.	.5	0.	.5	1.2
Transportation equipment	8.2	11.2	13.8	87.0	0.	0.	3.7	14.5
Motor vehicles and equipment	1.1	1.4	1.6	0.	0.	0.	.1	4.5
Aircraft and parts	4.8	6.5	7.8	55.9	0.	0.	1.9	7.5
Ship and boat building and repairing	.3	.3	.4	0.	0.	0.	.1	.4
Railroad equipment	.2	.2	.3	0.	0.	0.	0.	.5
Guided missiles and space vehicles	1.8	2.7	3.6	31.1	0.	0.	1.6	1.5
Misc. transportation equipment	.1	.0	.1	0.	0.	0.	0.	.2
Instruments	3.5	3.5	4.2	0.	1.4	0.	7.3	3.5
Engineering and scientific instruments	.9	.9	1.1	0.	.3	0.	2.2	.3
Measuring and controlling instruments	1.3	1.4	1.7	0.	.8	0.	3.3	1.8
Optical instruments and lenses	.3	.3	.4	0.	0.	0.	.5	.1
Medical instruments and supplies	.4	.3	.3	0.	.3	0.	.3	.7
Ophthalmic goods	.0	.0	.0	0.	0.	0.	0.	.1
Photographic equipment and supplies	.5	.6	.6	0.	0.	0.	.9	.4
Watches, clocks, and watchcases	0.	.0	.0	0.	0.	0.	.0	.1
Miscellaneous manufacturing	.3	.3	.3	0.	0.	0.	0.	1.4
Musical instruments and parts	.0	.0	.0	0.	0.	0.	0.	.1
Toys and sporting goods	.1	.1	.1	0.	0.	0.	0.	.5
Pens, pencils, office and art supplies	.0	.0	.0	0.	0.	0.	0.	.1
Costume jewelry and notions	.0	.0	.0	0.	0.	0.	0.	.2
Misc. manufacturers	.1	.1	.1	0.	0.	0.	0.	.4

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Nondurable goods	10.5	11.6	7.9	0.	57.5	1.8	1.5	13.2
Food and food products	.9	.7	.4	0.	0.	0.	0.	.1
Meat products	.1	.0	.0	0.	0.	0.	0.	0.
Dairy products	.1	.0	.0	0.	0.	0.	0.	0.
Canned and preserved fruits and vegetables	.1	.1	.1	0.	0.	0.	0.	0.
Grain mill products	.2	.2	.0	0.	0.	0.	0.	0.
Bakery products	.0	.0	.0	0.	0.	0.	0.	0.
Sugar and confectionery products	.1	.1	.0	0.	0.	0.	0.	.1
Fats and oils	.0	.1	.0	0.	0.	0.	0.	0.
Beverages	.1	.1	.1	0.	0.	0.	0.	0.
Misc. food and kindred products	.1	.1	.1	0.	0.	0.	0.	0.
Tobacco manufactures	.1	.1	.1	0.	0.	0.	0.	0.
Cigarettes	.1	.0	.0	0.	0.	0.	0.	0.
Textiles	.7	.4	.4	0.	0.	0.	0.	2.5
Weaving mills, cotton	.0	.0	.1	0.	0.	0.	0.	.5
Weaving mills, synthetics	.1	.1	.1	0.	0.	0.	0.	.5
Knitting mills	.1	.1	.1	0.	0.	0.	0.	.5
Textile finishing, except wools	.1	.0	.0	0.	0.	0.	0.	.2
Floor covering mills	.2	.0	.0	0.	0.	0.	0.	.1
Yarn and thread mills	.0	.0	.0	0.	0.	0.	0.	.3
Misc. textile goods	.1	.1	.1	0.	0.	0.	0.	.2
Apparel	.2	.2	.3	0.	0.	0.	0.	2.6
Men's and boys' furnishings	.1	.1	.1	0.	0.	0.	0.	1.0
Women's and misses' outerwear	.0	.0	.1	0.	0.	0.	0.	.6
Women's and children's undergarments	.0	.0	.0	0.	0.	0.	0.	.2
Misc. fabricated textiles	.0	.1	.1	0.	0.	0.	0.	.5
Paper and allied products	.6	.7	.7	0.	2.8	0.	.2	1.7
Pulp mills	.0	.0	.0	0.	.3	0.	.0	0.
Paper mills, except building paper	.3	.3	.3	0.	1.9	0.	.1	.5
Paperboard mills	.1	.1	.1	0.	.6	0.	.0	.1
Misc. converted paper products	.1	.2	.2	0.	0.	0.	.0	.5
Paperboard containers and boxes	.1	.1	.1	0.	0.	0.	0.	.5
Printing and publishing	.4	.3	.2	0.	0.	0.	0.	.2
Newspapers	.1	.1	.0	0.	0.	0.	0.	0.
Periodicals	.1	.0	.0	0.	0.	0.	0.	0.
Books	.0	.0	.0	0.	0.	0.	0.	.1
Misc. publishing	.0	.0	.0	0.	0.	0.	0.	0.
Commercial printing	.1	.1	.1	0.	0.	0.	0.	0.
Manifold business forms	.0	.0	.0	0.	0.	0.	0.	.1
Greeting card publishing	.0	.0	.0	0.	0.	0.	0.	0.
Chemicals	5.8	7.0	3.9	0.	43.1	.8	.9	3.3
Industrial inorganic chemicals	.9	1.0	.8	0.	9.7	.2	.2	.4
Plastics materials and synthetics	1.0	1.1	1.0	0.	10.4	0.	.3	.8
Drugs	1.4	1.8	.3	0.	1.8	0.	.1	.7
Soaps, cleaners, and toilet goods	.3	.4	.1	0.	1.0	0.	0.	.3
Paints and allied products	.2	.3	.1	0.	.5	0.	0.	.1
Industrial organic chemicals	1.4	1.7	1.2	0.	15.0	.5	.3	.6
Agricultural chemicals	.2	.2	.2	0.	2.1	0.	0.	.1
Misc. chemical products	.4	.5	.2	0.	2.4	.1	.1	.2
Refined petroleum products	1.0	1.4	1.1	0.	9.3	1.1	.2	.5
Petroleum refining	1.0	1.3	1.1	0.	9.2	1.0	.2	.5
Paving and roofing materials	.0	.0	.0	0.	0.	.1	.0	0.
Misc. petroleum and coal products	.0	.0	.0	0.	.2	0.	0.	.0
Rubber and plastic products	.8	.8	.8	0.	2.3	0.	.1	2.2
Tires and inner tubes	.2	.2	.2	0.	.6	0.	.1	.5
Rubber and plastic hose and belting	.0	.0	.0	0.	.1	0.	0.	.1
Fabricated rubber products, n.e.c.	.1	.1	.1	0.	.3	0.	.0	.4
Misc. plastic products	.4	.4	.5	0.	1.3	0.	0.	1.2
Leather products	.0	.0	.0	0.	0.	0.	0.	.1
Footwear, except rubber	.0	.0	.0	0.	0.	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/astronautical	Chemical	Civil	Electrical/electronic	Industrial
Transportation, communications, public utilities	7.2	6.9	7.8	2.3	1.9	3.2	14.9	5.5
Transportation, except railroads	1.0	.6	.5	2.3	0.	.0	.2	.3
Trucking and warehousing	.1	.1	.1	0.	0.	0.	0.	0.
Water transportation	.4	.1	.2	0.	0.	0.	0.	0.
Air transportation	.3	.3	.2	2.3	0.	0.	.1	.3
Pipelines, except natural gas	.1	.1	.1	0.	0.	.0	.1	0.
Transportation services	.0	.0	.0	0.	0.	0.	0.	0.
Communications	3.0	3.3	3.9	0.	0.	.8	9.3	3.1
Telephone	2.4	2.5	3.0	0.	0	.8	6.2	3.1
Radio and TV broadcasting	.5	.8	1.0	0.	0.	0.	3.1	0.
Electric, gas and sanitary services	3.3	2.9	3.4	0.	1.9	2.4	5.4	2.1
Wholesale and retail trade	7.9	5.6	4.5	0.	6.7	16.7	6.3	0.
Wholesale trade	7.3	5.4	4.4	0.	6.7	16.7	6.3	0.
Durable goods wholesalers	6.5	4.6	3.9	0.	3.0	16.7	6.1	0.
Nondurable goods wholesalers	.8	.8	.6	0.	3.6	0.	.2	0.
Retail trade	.6	.2	.1	0.	0.	0.	0.	0.
Building materials and garden supplies	.0	.0	.0	0.	0.	0.	0.	0.
General merchandise stores	.2	.1	.1	0.	0.	0.	0.	0.
Food stores	.0	.0	.0	0.	0.	0.	0.	0.
Auto dealers and service stations	.1	.0	.0	0.	0.	0.	0.	0.
Furniture and home furnishing stores	.1	.0	.0	0.	0.	0.	.0	0.
Eating and drinking places	.0	.0	.0	0.	0.	0.	0.	0.
Misc. retail stores	.2	.0	.0	0.	0.	0.	0.	0.
Finance, insurance and real estate	2.8	3.0	.7	0.	0.	0.	0.	0.
Banking	.7	.7	.0	0.	0.	0.	0.	0.
Federal Reserve banks	.1	.1	0.	0.	0.	0.	0.	0.
Commercial and stock saving banks	.6	.6	.0	0.	0.	0.	0.	0.
Mutual savings banks	.0	.0	0.	0.	0.	0.	0.	0.
Other credit agencies	.1	.1	0.	0.	0.	0.	0.	0.
Personal credit institutions	.0	.0	0.	0.	0.	0.	0.	0.
Security and commodity brokers and dealers	.2	.2	0.	0.	0.	0.	0.	0.
Security brokers and dealers	.1	.1	0.	0.	0.	0.	0.	0.
Security and commodity services	.1	.1	0.	0.	0.	0.	0.	0.
Insurance	1.7	1.9	.4	0.	0.	0.	0.	0.
Life insurance	.7	.8	.1	0.	0.	0.	0.	0.
Medical services and health insurance	.2	.3	.0	0.	0.	0.	0.	0.
Fire, marine and casualty insurance	.5	.6	.2	0.	0.	0.	0.	0.
Insurance agents, brokers, and services	.2	.2	.1	0.	0.	0.	0.	0.
Real estate	.2	.2	.3	0.	0.	0.	0.	0.
Real estate operators and lessors	.0	.0	.0	0.	0.	0.	0.	0.
Subdividers and developers	.1	.0	.0	0.	0.	0.	0.	0.
Investment and holding companies	.3	.4	.1	0.	0.	0.	0.	0.
Holding company offices	.1	.1	.0	0.	0.	0.	0.	0.
Misc. investing	.0	.1	.0	0.	0.	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Total scientists, engineers, and technicians	Total scientists, and engineers	Engineers					
			Total	Aeronautical/ astronautical	Chemical	Civil	Electrical/ electronic	Industrial
Services	25.1	22.2	19.1	10.7	22.9	54.6	16.2	9.7
Hotels, motels, and lodging places	.1	.1	.1	0.	0.	0.	0.	0.
Business services	10.8	10.3	6.7	8.1	12.3	3.4	8.9	5.3
Advertising	.0	.0	.0	0.	0.	0.	0.	0.
Mailing, reproduction, etc. services	.0	.0	0.	0.	0.	0.	0.	0.
Personnel supply services	.5	.3	.3	0.	0.	0.	.6	0.
Computer and data processing services	3.1	2.3	.5	0.	0.	0.	1.4	.2
Misc. business services	7.1	7.7	5.9	8.1	12.3	3.4	6.8	5.1
Repair services	.6	.0	.0	0.	0.	0.	.0	0.
Electrical repair services	.4	.0	.0	0.	0.	0.	.0	0.
Misc. repair services	.2	.0	.0	0.	0.	0.	.0	0.
Motion pictures	.1	.0	.0	0.	0.	0.	0.	0.
Motion picture production	.0	.0	.0	0.	0.	0.	0.	0.
Other services	13.6	11.7	12.3	2.6	10.6	51.3	7.3	4.4
Medical and dental laboratories	.0	.0	0.	0.	0.	0.	0.	0.
Job training and vocational rehabilitation	.0	.0	.0	0.	0.	0.	0.	0.
Business associations	.2	.1	.0	0.	0.	.1	0.	0.
Professional membership organizations	.0	.0	.0	0.	0.	0.	0.	0.
Civic, social and fraternal organizations	.0	.1	0.	0.	0.	0.	0.	0.
Religious organizations	.1	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	11.4	9.5	11.8	2.6	9.7	50.2	7.3	4.4
Noncommercial educational, scientific and research organizations	1.3	1.2	.4	0.	.9	1.0	0.	.1
Accounting, auditing and bookkeeping	.3	.3	.0	0.	0.	0.	0.	0.
Services, n.e.c.	.2	.3	.1	0.	0.	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mining	.7	1.7	91.0	83.7	24.2	3.0	7.3	18.2
Metallic minerals	.1	1.7	27.2	0.	1.7	.5	.6	1.8
Iron ore	.0	0.	3.7	0.	0.	.1	.0	.1
Copper ore	.0	.9	7.5	0.	.5	.0	.1	.2
Lead and zinc ores	0.	0.	3.3	0.	0.	.1	.0	.1
Ferroalloy ores, except vanadium	0.	0.	4.1	0.	0.	.1	.0	.1
Metal mining services	0.	0.	0.	0.	0.	.1	.2	.5
Misc. metallic ores	0.	.9	8.6	0.	1.1	.1	.3	.8
Coal	.1	0.	53.2	0.	14.7	.3	.2	.4
Bituminous and lignite	.1	0.	53.2	0.	14.7	.3	.2	.4
Oil and gas extraction	.5	0.	0.	83.7	7.9	1.9	6.3	15.5
Crude petroleum and natural gas	.3	0.	0.	60.4	4.6	.9	5.0	11.9
Oil and gas services	.2	0.	0.	22.3	3.2	1.1	1.2	3.4
Nonmetallic mineral mining	.0	0.	10.6	0.	0.	.2	.2	.5
Crushed and broken stone	0.	0.	2.3	0.	0.	.0	.0	.1
Clay, ceramic, etc., minerals	0.	0.	0.	0.	0.	.1	.0	.1
Chemical and fertilizer minerals	.0	0.	4.0	0.	0.	.1	.1	.4
Construction	8.0	0.	0.	0.	24.9	4.9	.4	0.
General building contractors	1.2	0.	0.	0.	7.7	1.2	.1	0.
Residential building contractors	.2	0.	0.	0.	1.1	.2	0.	0.
Operative builders	0.	0.	0.	0.	0.	.0	0.	0.
Nonresidential building contractors	1.0	0.	0.	0.	6.6	1.0	.1	0.
Other construction contractors	3.9	0.	0.	0.	17.2	3.4	.4	0.
Highway and street construction	0.	0.	0.	0.	3.3	.2	.0	0.
Heavy construction except highway	3.9	0.	0.	0.	14.0	3.3	.3	0.
Special trade contractors	2.9	0.	0.	0.	0.	.3	0.	0.
Plumbing, heating, air conditioning	2.0	0.	0.	0.	0.	.1	0.	0.
Electrical work	.1	0.	0.	0.	0.	.0	0.	0.
Roofing, sheet metal work	.1	0.	0.	0.	0.	0.	0.	0.
Concrete work	.1	0.	0.	0.	0.	.0	0.	0.
Misc. special trade contractors	.4	0.	0.	0.	0.	.2	0.	0.
Manufacturing	65.4	72.2	0.	5.7	33.7	68.7	38.5	57.7
Durable goods manufacturing	55.6	72.2	0.	0.	10.6	60.4	15.7	12.9
Lumber and wood products	.1	0.	0.	0.	0.	.4	.3	.0
Logging camps and contractors	0.	0.	0.	0.	0.	.0	.0	0.
Sawmills and planing mills	0.	0.	0.	0.	0.	.2	.2	0.
Millwork, and related products	.1	0.	0.	0.	0.	.1	.1	0.
Wood buildings and mobile homes	0.	0.	0.	0.	0.	.1	0.	0.
Misc. wood products	.1	0.	0.	0.	0.	.1	.0	.0
Furniture and fixtures	.3	0.	0.	0.	0.	.2	.1	0.
Household furniture	.1	0.	0.	0.	0.	.1	.1	0.
Office furniture	.1	0.	0.	0.	0.	.0	.0	0.
Public building furniture	.0	0.	0.	0.	0.	.0	0.	0.
Partitions and fixtures	.0	0.	0.	0.	0.	.0	0.	0.
Misc. furniture and fixtures	.0	0.	0.	0.	0.	.0	.0	0.
Stone, clay and glass products	.8	0.	0.	0.	0.	1.4	.6	1.4
Flat glass	.0	0.	0.	0.	0.	.1	.0	.0
Glass and glassware, pressed or blown	.3	0.	0.	0.	0.	.2	.1	.2
Products of purchased glass	.1	0.	0.	0.	0.	.1	.0	.0
Hydraulic cement	.0	0.	0.	0.	0.	.1	.2	.5
Structural clay products	0.	0.	0.	0.	0.	.1	.0	.0
Pottery and related products	0.	0.	0.	0.	0.	.2	0.	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	0.	.3	.0	.1
Misc. nonmetallic mineral products	.4	0.	0.	0.	0.	.4	.2	.5

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Primary metals	2.4	42.2	0.	0.	10.6	1.8	1.1	1.9
Blast furnace and primary steel products	.8	19.6	0.	0.	5.0	.7	.5	.8
Iron and steel foundries	.3	7.8	0.	0.	2.0	.4	.1	.1
Primary nonferrous metals	.3	2.6	0.	0.	.8	.1	.1	.2
Secondary nonferrous metals	.0	2.2	0.	0.	0.	.0	.1	.2
Nonferrous rolling and drawing	.8	6.3	0.	0.	2.0	.4	.2	.3
Nonferrous foundries	.1	1.6	0.	0.	.7	.1	.0	.0
Misc. primary metal products	.0	2.2	0.	0.	0.	.0	.1	.2
Fabricated metal products	8.2	2.8	0.	0.	0.	3.3	.9	1.3
Metal cans and shipping containers	.3	0.	0.	0.	0.	.1	.0	.1
Cutlery, handtools, and hardware	.7	0.	0.	0.	0.	.3	.1	.1
Plumbing and heating products	.5	0.	0.	0.	0.	.2	.0	0.
Fabricated structural metal products	3.4	0.	0.	0.	0.	1.3	.3	.4
Screw machine products, bolts, etc.	.4	.8	0.	0.	0.	.1	.0	0.
Metal forgings and stampings	.5	1.9	0.	0.	0.	.4	.0	.1
Coating, engraving and allied services	.2	0.	0.	0.	0.	.1	.1	.2
Ordnance and accessories	.5	0.	0.	0.	0.	.2	.1	.3
Misc. fabricated metal products	1.5	0.	0.	0.	0.	.7	.1	.1
Machinery	21.0	11.8	0.	0.	0.	10.1	3.4	1.3
Engines and turbines	2.2	4.6	0.	0.	0.	.9	.3	.6
Farm and garden machinery	1.2	0.	0.	0.	0.	.4	.1	0.
Construction and related machinery	4.3	2.7	0.	0.	0.	1.4	.3	.2
Metalworking machinery	3.8	0.	0.	0.	0.	.8	.1	.0
Special industry machinery	1.9	0.	0.	0.	0.	.5	.0	.1
General industrial machinery	3.5	4.6	0.	0.	0.	1.5	.2	.1
Office and computing machines	2.3	0.	0.	0.	0.	3.8	2.2	.2
Refrigeration and service industry machinery	.7	0.	0.	0.	0.	.7	.1	.1
Misc. machinery	1.0	0.	0.	0.	0.	.2	.0	.0
Electrical machinery	9.5	0.	0.	0.	0.	13.7	4.3	2.3
Electrical distribution equipment	.3	0.	0.	0.	0.	.4	.1	.0
Electrical industrial apparatus	1.2	0.	0.	0.	0.	.6	.2	.1
Household appliances	.8	0.	0.	0.	0.	.3	.1	.0
Electrical lighting and wiring equipment	.6	0.	0.	0.	0.	.6	.1	.1
Radio and TV receiving equipment	.3	0.	0.	0.	0.	.5	.1	0.
Communications equipment	4.2	0.	0.	0.	0.	8.4	3.0	1.3
Electronic components and accessories	1.6	0.	0.	0.	0.	1.9	.6	.5
Misc. electrical equipment	.5	0.	0.	0.	0.	.9	.1	.2
Transportation equipment	9.6	15.4	0.	0.	0.	23.5	3.5	1.9
Motor vehicles and equipment	2.0	0.	0.	0.	0.	4.3	.8	.4
Aircraft and parts	6.5	15.4	0.	0.	0.	11.0	2.4	1.3
Ship and boat building and repairing	.6	0.	0.	0.	0.	1.0	.0	.1
Railroad equipment	.4	0.	0.	0.	0.	.8	.0	0.
Guided missiles and space vehicles	0.	0.	0.	0.	0.	6.2	.2	.1
Misc. transportation equipment	.1	0.	0.	0.	0.	.1	0.	0.
Instruments	3.2	0.	0.	0.	0.	5.5	1.4	2.5
Engineering and scientific instruments	.9	0.	0.	0.	0.	1.2	.2	.5
Measuring and controlling instruments	1.2	0.	0.	0.	0.	1.6	.4	.3
Optical instruments and lenses	.4	0.	0.	0.	0.	.5	.1	.3
Medical instruments and supplies	.6	0.	0.	0.	0.	.4	.3	.4
Ophthalmic goods	.1	0.	0.	0.	0.	.0	.0	.0
Photographic equipment and supplies	0.	0.	0.	0.	0.	1.7	.3	1.0
Watches, clocks, and watchcases	.1	0.	0.	0.	0.	.0	0.	0.
Miscellaneous manufacturing	.5	0.	0.	0.	0.	.5	.1	.2
Musical instruments and parts	.0	0.	0.	0.	0.	.1	0.	0.
Toys and sporting goods	.2	0.	0.	0.	0.	.2	.1	.1
Pens, pencils, office and art supplies	.1	0.	0.	0.	0.	.0	.0	.1
Costume jewelry and notions	.1	0.	0.	0.	0.	.0	.0	.0
Misc. manufacturers	.1	0.	0.	0.	0.	.1	.0	.1

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Nondurable goods	9.9	0.	0.	5.7	23.1	8.3	22.7	44.8
Food and food products	.3	0.	0.	0.	0.	1.6	1.7	4.5
Meat products	0.	0.	0.	0.	0.	.2	.0	.1
Dairy products	0.	0.	0.	0.	0.	.0	.0	.0
Canned and preserved fruits and vegetables	0.	0.	0.	0.	0.	.3	.1	.1
Grain mill products	0.	0.	0.	0.	0.	.2	.6	1.6
Bakery products	0.	0.	0.	0.	0.	.1	0.	0.
Sugar and confectionery products	.1	0.	0.	0.	0.	.1	.3	.7
Fats and oils	0.	0.	0.	0.	0.	.0	.3	.8
Beverages	.1	0.	0.	0.	0.	.3	.2	.4
Misc. food and kindred products	.1	0.	0.	0.	0.	.4	.2	.7
Tobacco manufactures	.0	0.	0.	0.	0.	.3	.0	0.
Cigarettes	0.	0.	0.	0.	0.	.2	.0	0.
Textiles	.6	0.	0.	0.	0.	.4	.5	.9
Weaving mills, cotton	.1	0.	0.	0.	0.	.0	.0	.1
Weaving mills, synthetics	.1	0.	0.	0.	0.	.1	.1	.1
Knitting mills	.1	0.	0.	0.	0.	.0	.1	.1
Textile finishing, except wools	.1	0.	0.	0.	0.	.0	.1	.2
Floor covering mills	.0	0.	0.	0.	0.	0.	.0	.0
Yarn and thread mills	.1	0.	0.	0.	0.	.0	.0	.1
Misc. textile goods	.1	0.	0.	0.	0.	.2	.1	.3
Apparel	.1	0.	0.	0.	0.	.3	0.	0.
Men's and boys' furnishings	0.	0.	0.	0.	0.	.1	0.	0.
Women's and misses' outerwear	0.	0.	0.	0.	0.	.0	0.	0.
Women's and children's undergarments	0.	0.	0.	0.	0.	.0	0.	0.
Misc. fabricated textiles	.1	0.	0.	0.	0.	.1	0.	0.
Paper and allied products	1.4	0.	0.	0.	0.	.6	.7	1.5
Pulp mills	.1	0.	0.	0.	0.	.0	.1	.2
Paper mills, except building paper	.6	0.	0.	0.	0.	.2	.3	.6
Paperboard mills	.2	0.	0.	0.	0.	.1	.1	.2
Misc. converted paper products	.3	0.	0.	0.	0.	.2	.2	.4
Paperboard containers and boxes	.2	0.	0.	0.	0.	.1	.0	.0
Printing and publishing	.1	0.	0.	0.	0.	.7	.7	.1
Newspapers	0.	0.	0.	0.	0.	.2	.3	0.
Periodicals	0.	0.	0.	0.	0.	.1	.2	0.
Books	0.	0.	0.	0.	0.	.0	.1	0.
Misc. publishing	0.	0.	0.	0.	0.	.1	.1	0.
Commercial printing	0.	0.	0.	0.	0.	.3	.1	.1
Manifold business forms	.0	0.	0.	0.	0.	.0	.0	0.
Greeting card publishing	0.	0.	0.	0.	0.	.1	0.	0.
Chemicals	4.4	0.	0.	0.	16.8	2.4	16.4	32.2
Industrial inorganic chemicals	.8	0.	0.	0.	4.5	.3	1.8	4.6
Plastics materials and synthetics	1.2	0.	0.	0.	3.6	.7	1.4	3.3
Drugs	.4	0.	0.	0.	0.	.5	6.1	6.7
Soaps, cleaners, and toilet goods	.2	0.	0.	0.	0.	.2	1.3	3.3
Paints and allied products	.1	0.	0.	0.	0.	.0	1.0	3.1
Industrial organic chemicals	1.3	0.	0.	0.	5.0	.4	3.1	7.0
Agricultural chemicals	.1	0.	0.	0.	1.6	.1	.4	1.0
Misc. chemical products	.3	0.	0.	0.	2.1	.1	1.1	3.1
Refined petroleum products	1.2	0.	0.	5.7	6.3	.8	2.1	4.2
Petroleum refining	1.1	0.	0.	5.7	6.3	.8	1.9	3.7
Paving and roofing materials	.0	0.	0.	0.	0.	.0	.0	.1
Misc. petroleum and coal products	.0	0.	0.	0.	0.	.0	.1	.3
Rubber and plastic products	1.8	0.	0.	0.	0.	1.1	.6	1.5
Tires and inner tubes	.4	0.	0.	0.	0.	.2	.1	.2
Rubber and plastic hose and belting	.0	0.	0.	0.	0.	.1	.0	.1
Fabricated rubber products, n.e.c.	.3	0.	0.	0.	0.	.1	.2	.5
Misc. plastic products	1.0	0.	0.	0.	0.	.7	.2	.6
Leather products	.1	0.	0.	0.	0.	.1	.0	.1
Footwear, except rubber	.1	0.	0.	0.	0.	.0	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Transportation, communications, public utilities	4.0	0.	0.	0.	.1	8.3	3.9	1.8
Transportation, except railroads	.5	0.	0.	0.	.1	1.2	.8	.4
Trucking and warehousing	0.	0.	0.	0.	0.	.3	.2	0.
Water transportation	.2	0.	0.	0.	0.	.6	.1	.0
Air transportation	0.	0.	0.	0.	0.	.1	.5	.3
Pipelines, except natural gas	.3	0.	0.	0.	.1	.1	.0	.0
Transportation services	0.	0.	0.	0.	0.	.1	.1	0.
Communication	.4	0.	0.	0.	0.	3.7	1.4	0.
Telephone	.4	0.	0.	0.	0.	3.4	1.3	0.
Radio and TV broadcasting	0.	0.	0.	0.	0.	.3	.1	0.
Electric, gas and sanitary services	3.1	0.	0.	0.	0.	3.4	1.6	1.4
Wholesale and retail trade	1.2	0.	0.	0.	0.	2.1	8.7	1.0
Wholesale trade	1.1	0.	0.	0.	0.	1.6	8.2	1.0
Durable goods wholesalers	0.	0.	0.	0.	0.	.9	6.6	.1
Nondurable goods wholesalers	1.1	0.	0.	0.	0.	.7	1.6	.9
Retail trade	.0	0.	0.	0.	0.	.4	.6	.0
Building materials and garden supplies	0.	0.	0.	0.	0.	.0	.0	0.
General merchandise stores	.0	0.	0.	0.	0.	.2	.2	0.
Food stores	0.	0.	0.	0.	0.	.1	.1	.0
Auto dealers and service stations	0.	0.	0.	0.	0.	.0	.0	.0
Furniture and home furnishing stores	0.	0.	0.	0.	0.	.0	.0	0.
Eating and drinking places	0.	0.	0.	0.	0.	.0	.0	0.
Misc. retail stores	0.	0.	0.	0.	0.	.1	.1	.0
Finance, insurance and real estate	0.	0.	0.	0.	0.	3.4	10.0	0.
Banking	0.	0.	0.	0.	0.	.2	2.6	0.
Federal Reserve banks	0.	0.	0.	0.	0.	0.	.3	0.
Commercial and stock saving banks	0.	0.	0.	0.	0.	.2	2.3	0.
Mutual savings banks	0.	0	0.	0.	0.	0.	.1	0.
Other credit agencies	0.	0.	0.	0.	0.	0.	.2	0.
Personal credit institutions	0.	0.	0.	0.	0.	0.	.1	0.
Security and commodity brokers and dealers	0.	0.	0.	0.	0.	0.	.8	0.
Security brokers and dealers	0.	0.	0.	0.	0.	0.	.4	0.
Security and commodity services	0.	0.	0.	0.	0.	0.	.3	0.
Insurance	0.	0.	0.	0.	0.	1.9	6.3	0.
Life insurance	0.	0.	0.	0.	0.	.3	2.9	0.
Medical services and health insurance	0.	0.	0.	0.	0.	.0	1.0	0.
Fire, marine and casualty insurance	0.	0.	0.	0.	0.	1.2	1.6	0.
Insurance agents, brokers, and service	0.	0.	0.	0.	0.	.4	.6	0.
Real estate	0.	0.	0.	0.	0.	1.2	.1	0.
Real estate operators and lessors	0.	0.	0.	0.	0.	.2	.0	0.
Subdividers and developers	0.	0.	0.	0.	0.	.2	.0	0.
Investment and holding companies	0.	0.	0.	0.	0.	.7	1.2	.7
Holding company offices	0.	0.	0.	0.	0.	.2	3	0.
Misc. investing	0.	0.	0.	0.	0.	.1	.2	.3

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Engineers						Scientists	
	Mechanical	Metallurgical	Mining	Petroleum	Safety	All other	Total	Total physical
Services	20.7	26.0	9.0	10.6	17.1	9.7	31.2	21.2
Hotels, motels, and lodging places	0.	0.	0.	0.	0.	.4	0.	0.
Business services	6.7	19.3	0.	5.2	9.4	3.9	21.0	13.3
Advertising	0.	0.	0.	0.	0.	.1	.1	0.
Mailing, reproduction, etc. services	0.	0.	0.	0.	0.	0.	.1	0.
Personnel supply services	0.	0.	0.	0.	0.	.5	.2	0.
Computer and data processing services	.1	0.	0.	0.	0.	.4	7.7	.4
Misc. business services	6.6	19.3	0.	5.2	9.4	2.9	13.0	12.9
Repair services	0.	0.	0.	0.	0.	.0	0.	0.
Electrical repair services	0.	0.	0.	0.	0.	0.	0.	0.
Misc. repair services	0.	0.	0.	0.	0.	.0	0.	0.
Motion pictures	0.	0.	0.	0.	0.	.1	.0	0.
Motion picture production	0.	0.	0.	0.	0.	.1	.0	0.
Other services	14.1	6.8	9.0	5.4	7.6	5.2	10.1	7.9
Medical and dental laboratories	0.	0.	0.	0.	0.	0.	.2	.2
Job training and vocational rehabilitation	0.	0.	0.	0.	0.	.0	.1	.0
Business associations	0.	0.	0.	0.	0.	.1	.3	.1
Professional membership organizations	0.	0.	0.	0.	0.	.0	.1	0.
Civic, social and fraternal organizations	0.	0.	0.	0.	0.	0.	.3	0.
Religious organizations	0.	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	13.6	5.5	9.0	5.4	6.4	4.1	2.6	3.6
Noncommercial educational, scientific and research organizations	.4	1.3	0.	0.	1.2	.5	3.9	2.7
Accounting, auditing and bookkeeping	0.	0.	0.	0.	0.	.1	1.3	.0
Services, n.e.c.	0.	0.	0.	0.	0.	.3	1.2	1.2

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mining	1.3	76.5	0.	0.	7.5	0.	0.	0.
Metallic minerals	.4	7.4	0.	0.	0.	0.	0.	0.
Iron ore	.1	0.	0.	0.	0.	0.	0.	0.
Copper ore	.2	.4	0.	0.	0.	0.	0.	0.
Lead and zinc ores	0.	.6	0.	0.	0.	0.	0.	0.
Ferroalloy ores, except vanadium	0.	.4	0.	0.	0.	0.	0.	0.
Metal mining services	0.	2.4	0.	0.	0.	0.	0.	0.
Misc. metallic ores	.1	3.6	0.	0.	0.	0.	0.	0.
Coal	.4	.7	0.	0.	0.	0.	0.	0.
Bituminous and lignite	.4	.7	0.	0.	0.	0.	0.	0.
Oil and gas extraction	0.	68.1	0.	0.	6.3	0.	0.	0.
Crude petroleum and natural gas	0.	52.5	0.	0.	4.9	0.	0.	0.
Oil and gas services	0.	15.0	0.	0.	1.4	0.	0.	0.
Nonmetallic mineral mining	.5	.3	0.	0.	1.3	0.	0.	0.
Crushed and broken stone	0.	0.	0.	0.	.4	0.	0.	0.
Clay, ceramic, etc., minerals	.1	.3	0.	0.	0.	0.	0.	0.
Chemical and fertilizer minerals	.4	0.	0.	0.	.9	0.	0.	0.
Construction	0.	0.	0.	0.	0.	0.	0.	0.
General building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Residential building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Operative builders	0.	0.	0.	0.	0.	0.	0.	0.
Nonresidential building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Other construction contractors	0.	0.	0.	0.	0.	0.	0.	0.
Highway and street construction	0.	0.	0.	0.	0.	0.	0.	0.
Heavy construction except highway	0.	0.	0.	0.	0.	0.	0.	0.
Special trade contractors	0.	0.	0.	0.	0.	0.	0.	0.
Plumbing, heating, air conditioning	0.	0.	0.	0.	0.	0.	0.	0.
Electrical work	0.	0.	0.	0.	0.	0.	0.	0.
Roofing, sheet metal work	0.	0.	0.	0.	0.	0.	0.	0.
Concrete work	0.	0.	0.	0.	0.	0.	0.	0.
Misc. special trade contractors	0.	0.	0.	0.	0.	0.	0.	0.
Manufacturing	82.2	2.8	0.	8.8	58.8	57.1	63.3	72.3
Durable goods manufacturing	10.7	0.	0.	.7	46.4	5.0	41.6	0.
Lumber and wood products	0.	0.	0.	0.	.1	3.4	41.6	0.
Logging camps and contractors	0.	0.	0.	0.	0.	.3	3.4	0.
Sawmills and planing mills	0.	0.	0.	0.	0.	2.5	30.7	0.
Millwork, and related products	0.	0.	0.	0.	0.	.6	7.5	0.
Wood buildings and mobile homes	0.	0.	0.	0.	0.	0.	0.	0.
Misc. wood products	0.	0.	0.	0.	.1	0.	0.	0.
Furniture and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Household furniture	0.	0.	0.	0.	0.	0.	0.	0.
Office furniture	0.	0.	0.	0.	0.	0.	0.	0.
Public building furniture	0.	0.	0.	0.	0.	0.	0.	0.
Partitions and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Misc. furniture and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Stone, clay and glass products	2.0	0.	0.	0.	1.6	0.	0.	0.
Flat glass	.1	0.	0.	0.	0.	0.	0.	0.
Glass and glassware, pressed or blown	.3	0.	0.	0.	0.	0.	0.	0.
Products of purchased glass	0.	0.	0.	0.	.2	0.	0.	0.
Hydraulic cement	.8	0.	0.	0.	.3	0.	0.	0.
Structural clay products	0.	0.	0.	0.	0.	0.	0.	0.
Pottery and related products	0.	0.	0.	0.	0.	0.	0.	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	.7	0.	0.	0.
Misc. nonmetallic mineral products	.7	0.	0.	0.	.4	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Primary metals	2.9	0.	0.	0.	1.6	0.	0.	0.
Blast furnace and primary steel products	1.3	0.	0.	0.	.3	0.	0.	0.
Iron and steel foundries	0.	0.	0.	0.	.9	0.	0.	0.
Primary nonferrous metals	.4	0.	0.	0.	0.	0.	0.	0.
Secondary nonferrous metals	.4	0.	0.	0.	0.	0.	0.	0.
Nonferrous rolling and drawing	.5	0.	0.	0.	.3	0.	0.	0.
Nonferrous foundries	0.	0.	0.	0.	.2	0.	0.	0.
Misc. primary metal products	.3	0.	0.	0.	0.	0.	0.	0.
Fabricated metal products	1.0	0.	0.	0.	5.3	0.	0.	0.
Metal cans and shipping containers	0.	0.	0.	0.	.5	0.	0.	0.
Cutlery, handtools, and hardware	0.	0.	0.	0.	1.0	0.	0.	0.
Plumbing and heating products	0.	0.	0.	0.	0.	0.	0.	0.
Fabricated structural metal products	0.	0.	0.	0.	2.7	0.	0.	0.
Screw machine products, bolts, etc.	0.	0.	0.	0.	0.	0.	0.	0.
Metal forgings and stampings	0.	0.	0.	0.	.4	0.	0.	0.
Coating, engraving and allied services	.4	0.	0.	0.	0.	0.	0.	0.
Ordnance and accessories	.5	0.	0.	0.	0.	0.	0.	0.
Misc. fabricated metal products	0.	0.	0.	0.	.7	0.	0.	0.
Machinery	0.	0.	0.	0.	9.2	0.	0.	0.
Engines and turbines	0.	0.	0.	0.	4.0	0.	0.	0.
Farm and garden machinery	0.	0.	0.	0.	0.	0.	0.	0.
Construction and related machinery	0.	0.	0.	0.	1.2	0.	0.	0.
Metalworking machinery	0.	0.	0.	0.	.3	0.	0.	0.
Special industry machinery	0.	0.	0.	0.	.9	0.	0.	0.
General industrial machinery	0.	0.	0.	0.	.8	0.	0.	0.
Office and computing machines	0.	0.	0.	0.	1.3	0.	0.	0.
Refrigeration and service industry machinery	0.	0.	0.	0.	.4	0.	0.	0.
Misc. machinery	0.	0.	0.	0.	.2	0.	0.	0.
Electrical machinery	.6	0.	0.	0.	13.7	0.	0.	0.
Electrical distribution equipment	0.	0.	0.	0.	.2	0.	0.	0.
Electrical industrial apparatus	0.	0.	0.	0.	.5	0.	0.	0.
Household appliances	0.	0.	0.	0.	.3	0.	0.	0.
Electrical lighting and wiring equipment	0.	0.	0.	0.	.7	0.	0.	0.
Radio and TV receiving equipment	0.	0.	0.	0.	0.	0.	0.	0.
Communications equipment	0.	0.	0.	0.	9.3	0.	0.	0.
Electronic components and accessories	.6	0.	0.	0.	1.3	0.	0.	0.
Misc. electrical equipment	0.	0.	0.	0.	1.4	0.	0.	0.
Transportation equipment	1.0	0.	0.	0.	9.6	0.	0.	0.
Motor vehicles and equipment	0.	0.	0.	0.	3.0	0.	0.	0.
Aircraft and parts	1.0	0.	0.	0.	5.1	0.	0.	0.
Ship and boat building and repairing	0.	0.	0.	0.	.5	0.	0.	0.
Railroad equipment	0.	0.	0.	0.	0.	0.	0.	0.
Guided missiles and space vehicles	0.	0.	0.	0.	1.0	0.	0.	0.
Misc. transportation equipment	0.	0.	0.	0.	0.	0.	0.	0.
Instruments	3.1	0.	0.	.7	4.5	1.6	0.	0.
Engineering and scientific instruments	.5	0.	0.	0.	1.2	0.	0.	0.
Measuring and controlling instruments	.2	0.	0.	0.	.9	0.	0.	0.
Optical instruments and lenses	.4	0.	0.	.7	0.	0.	0.	0.
Medical instruments and supplies	.5	0.	0.	0.	.8	1.6	0.	0.
Ophthalmic goods	.1	0.	0.	0.	0.	0.	0.	0.
Photographic equipment and supplies	1.3	0.	0.	0.	1.6	0.	0.	0.
Watches, clocks, and watchcases	0.	0.	0.	0.	0.	0.	0.	0.
Miscellaneous manufacturing	.2	0.	0.	0.	.8	0.	0.	0.
Musical instruments and parts	0.	0.	0.	0.	0.	0.	0.	0.
Toys and sporting goods	0.	0.	0.	0.	.4	0.	0.	0.
Pens, pencils, office and art supplies	.1	0.	0.	0.	0.	0.	0.	0.
Costume jewelry and notions	.1	0.	0.	0.	0.	0.	0.	0.
Misc. manufacturers	0.	0.	0.	0.	.4	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Nondurable goods	71.6	2.8	0.	8.0	12.5	52.1	21.6	72.3
Food and food products	7.2	0.	0.	0.	1.5	1.3	0.	0.
Meat products	0.	0.	0.	0.	.5	0.	0.	0.
Dairy products	0.	0.	0.	0.	.1	0.	0.	0.
Canned and preserved fruits and vegetables	0.	0.	0.	0.	.7	.7	0.	0.
Grain mill products	2.7	0.	0.	0.	0.	.1	0.	0.
Bakery products	0.	0.	0.	0.	0.	0.	0.	0.
Sugar and confectionery products	1.3	0.	0.	0.	0.	.2	0.	0.
Fats and oils	1.4	0.	0.	0.	0.	0.	0.	0.
Beverages	.6	0.	0.	0.	0.	.3	0.	0.
Misc. food and kindred products	1.2	0.	0.	0.	0.	0.	0.	0.
Tobacco manufactures	0.	0.	0.	0.	0.	0.	0.	0.
Cigarettes	0.	0.	0.	0.	0.	0.	0.	0.
Textiles	1.0	.1	0.	.4	1.8	0.	0.	0.
Weaving mills, cotton	0.	0.	0.	0.	.5	0.	0.	0.
Weaving mills, synthetics	.2	.1	0.	0.	0.	0.	0.	0.
Knitting mills	0.	0.	0.	0.	.8	0.	0.	0.
Textile finishing, except wools	.3	0.	0.	0.	0.	0.	0.	0.
Floor covering mills	.1	0.	0.	0.	0.	0.	0.	0.
Yarn and thread mills	0.	0.	0.	0.	.4	0.	0.	0.
Misc. textile goods	.4	0.	0.	0.	.1	0.	0.	0.
Apparel	0.	0.	0.	0.	0.	0.	0.	0.
Men's and boys' furnishings	0.	0.	0.	0.	0.	0.	0.	0.
Women's and misses' outerwear	0.	0.	0.	0.	0.	0.	0.	0.
Women's and children's undergarments	0.	0.	0.	0.	0.	0.	0.	0.
Misc. fabricated textiles	0.	0.	0.	0.	0.	0.	0.	0.
Paper and allied products	2.3	0.	0.	0.	1.1	.7	0.	0.
Pulp mills	.4	0.	0.	0.	0.	0.	0.	0.
Paper mills, except building paper	.8	0.	0.	0.	.9	.7	0.	0.
Paperboard mills	.3	0.	0.	0.	0.	0.	0.	0.
Misc. converted paper products	.7	0.	0.	0.	0.	0.	0.	0.
Paperboard containers and boxes	0.	0.	0.	0.	.1	0.	0.	0.
Printing and publishing	0.	0.	0.	0.	.8	0.	0.	0.
Newspapers	0.	0.	0.	0.	0.	0.	0.	0.
Periodicals	0.	0.	0.	0.	0.	0.	0.	0.
Books	0.	0.	0.	0.	0.	0.	0.	0.
Misc. publishing	0.	0.	0.	0.	0.	0.	0.	0.
Commercial printing	0.	0.	0.	0.	.8	0.	0.	0.
Manifold business forms	0.	0.	0.	0.	0.	0.	0.	0.
Greeting card publishing	0.	0.	0.	0.	0.	0.	0.	0.
Chemicals	52.5	0.	0.	7.6	6.7	50.2	21.6	72.3
Industrial inorganic chemicals	7.2	0.	0.	2.9	1.3	1.4	0.	1.8
Plastics materials and synthetics	5.3	0.	0.	0.	1.3	.2	0.	0.
Drugs	11.0	0.	0.	0.	1.8	42.8	18.4	63.6
Soaps, cleaners, and toilet goods	5.6	0.	0.	0.	.4	.6	0.	1.2
Paints and allied products	5.2	0.	0.	0.	0.	0.	0.	0.
Industrial organic chemicals	11.1	0.	0.	4.7	1.4	3.9	0.	4.9
Agricultural chemicals	1.8	0.	0.	0.	0.	.6	3.2	.9
Misc. chemical products	5.2	0.	0.	0.	.5	.6	0.	0.
Refined petroleum products	6.0	2.6	0.	0.	.6	0.	0.	0.
Petroleum refining	5.2	2.6	0.	0.	.6	0.	0.	0.
Paving and roofing materials	.2	0.	0.	0.	0.	0.	0.	0.
Misc. petroleum and coal products	.5	0.	0.	0.	0.	0.	0.	0.
Rubber and plastic products	2.5	0.	0.	0.	0.	0.	0.	0.
Tires and inner tubes	.3	0.	0.	0.	0.	0.	0.	0.
Rubber and plastic hose and belting	.1	0.	0.	0.	0.	0.	0.	0.
Fabricated rubber products, n.e.c.	.9	0.	0.	0.	0.	0.	0.	0.
Misc. plastic products	1.1	0.	0.	0.	0.	0.	0.	0.
Leather products	.1	0.	0.	0.	.2	0.	0.	0.
Footwear, except rubber	0.	0.	0.	0.	0.	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Transportation, communications, public utilities	0.	.2	0.	0.	12.7	0.	0.	0.
Transportation, except railroads	0.	.2	0.	0.	2.6	0.	0.	0.
Trucking and warehousing	0.	0.	0.	0.	0.	0.	0.	0.
Water transportation	0.	0.	0.	0.	.2	0.	0.	0.
Air transportation	0.	0.	0.	0.	2.3	0.	0.	0.
Pipelines, except natural gas	0.	.2	0.	0.	.1	0.	0.	0.
Transportation services	0.	0.	0.	0.	0.	0.	0.	0.
Communication	0.	0.	0.	0.	0.	0.	0.	0.
Telephone	0.	0.	0.	0.	0.	0.	0.	0.
Radio and TV broadcasting	0.	0.	0.	0.	0.	0.	0.	0.
Electric, gas and sanitary services	0.	0.	0.	0.	10.2	0.	0.	0.
Wholesale and retail trade	1.3	0.	0.	0.	1.7	2.2	0.	0.
Wholesale trade	1.3	0.	0.	0.	1.6	2.1	0.	0.
Durable goods wholesalers	.1	0.	0.	0.	.3	0.	0.	0.
Nondurable goods wholesalers	1.2	0.	0.	0.	1.3	2.0	0.	0.
Retail trade	0.	0.	0.	0.	.1	.2	0.	0.
Building materials and garden supplies	0.	0.	0.	0.	0.	0.	0.	0.
General merchandise stores	0.	0.	0.	0.	0.	0.	0.	0.
Food stores	0.	0.	0.	0.	.0	0.	0.	0.
Auto dealers and service stations	0.	0.	0.	0.	.0	.0	0.	0.
Furniture and home furnishing stores	0.	0.	0.	0.	0.	0.	0.	0.
Eating and drinking places	0.	0.	0.	0.	0.	0.	0.	0.
Misc. retail stores	0.	0.	0.	0.	.0	.2	0.	0.
Finance, insurance and real estate	0.	0.	0.	0.	0.	0.	0.	0.
Banking	0.	0.	0.	0.	0.	0.	0.	0.
Federal Reserve banks	0.	0.	0.	0.	0.	0.	0.	0.
Commercial and stock saving banks	0.	0.	0.	0.	0.	0.	0.	0.
Mutual savings banks	0.	0.	0.	0.	0.	0.	0.	0.
Other credit agencies	0.	0.	0.	0	0.	0.	0.	0.
Personal credit institutions	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity brokers and dealers	0.	0.	0.	0.	0.	0.	0.	0.
Security brokers and dealers	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity services	0.	0.	0.	0.	0.	0.	0.	0.
Insurance	0.	0.	0.	0.	0.	0.	0.	0.
Life insurance	0.	0.	0.	0.	0.	0.	0.	0.
Medical services and health insurance	0.	0.	0.	0.	0.	0.	0.	0.
Fire, marine and casualty insurance	0.	0.	0.	0.	0.	0.	0.	0.
Insurance agents, brokers, and service	0.	0.	0.	0.	0.	0.	0.	0.
Real estate	0.	0.	0.	0.	0.	0.	0.	0.
Real estate operators and lessors	0.	0.	0.	0.	0.	0.	0.	0.
Subdividers and developers	0.	0.	0.	0.	0.	0.	0.	0.
Investment and holding companies	0.	0.	0.	0.	4.6	0.	0.	0.
Holding company offices	0.	0.	0.	0.	[illegible]	0.	0.	0.
Misc. investing	0.	0.	0.	0.	[illegible]	[illegible]	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists							
	Chemists	Geologists and geophysicists	Oceanographers	Physicists	All other physical	Total life	Cultural	Biological
Services	15.2	20.6	100.0	91.2	19.2	40.6	36.7	27.7
Hotels, motels, and lodging places	0.	0.	0.	0.	0.	0.	0.	0.
Business services	11.6	6.9	0.	73.8	7.8	15.0	36.7	24.2
Advertising	0.	0.	0.	0.	0.	0.	0.	0.
Mailing, reproduction, etc. services	0.	0.	0.	0.	0.	0.	0.	0.
Personnel supply services	0.	0.	0.	0.	0.	0.	0.	0.
Computer and data processing services	0.	.8	0.	0.	1.6	0.	0.	0.
Misc. business services	11.6	6.1	0.	73.8	6.2	15.0	36.7	24.2
Repair services	0.	0.	0.	0.	0.	0.	0.	0.
Electrical repair services	0.	0.	0.	0.	0.	0.	0.	0.
Misc. repair services	0.	0.	0.	0.	0.	0.	0.	0.
Motion pictures	0.	0.	0.	0.	0.	0.	0.	0.
Motion picture production	0.	0.	0.	0.	0.	0.	0.	0.
Other services	3.5	13.8	100.0	17.4	11.4	25.7	0.	3.5
Medical and dental laboratories	.4	0.	0.	0.	0.	1.4	0.	3.5
Job training and vocational rehabilitation	0.	0.	0.	0.	0.	0.	0.	0.
Business associations	0.	0.	0.	0.	.7	0.	0.	0.
Professional membership organizations	0.	0.	0.	0.	0.	0.	0.	0.
Civic, social and fraternal organizations	0.	0.	0.	0.	0.	0.	0.	0.
Religious organizations	0.	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	1.1	9.0	41.8	8.1	3.0	3.4	0.	0.
Noncommercial educational, scientific and research organizations	2.0	.9	58.2	9.3	5.0	20.8	0.	0.
Accounting, auditing and bookkeeping	0.	0.	0.	0.	.2	0.	0.	0.
Services, n.e.c.	0.	3.9	0.	0.	2.5	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mining	0.	0.	2.4	0.	0.	5.0	0.	0.
Metallic minerals	0.	0.	0.	0.	0.	0.	0.	0.
Iron ore	0.	0.	0.	0.	0.	0.	0.	0.
Copper ore	0.	0.	0.	0.	0.	0.	0.	0.
Lead and zinc ores	0.	0.	0.	0.	0.	0.	0.	0.
Ferroalloy ores, except vanadium	0.	0.	0.	0.	0.	0.	0.	0.
Metal mining services	0.	0.	0.	0.	0.	0.	0.	0.
Misc. metallic ores	0.	0.	0.	0.	0.	0.	0.	0.
Coal	0.	0.	.2	0.	0.	.5	0.	0.
Bituminous and lignite	0.	0.	.2	0.	0.	.5	0.	0.
Oil and gas extraction	0.	0.	2.1	0.	0.	4.5	0.	0.
Crude petroleum and natural gas	0.	0.	2.1	0.	0.	4.5	0.	0.
Oil and gas services	0.	0.	0.	0.	0.	0.	0.	0.
Nonmetallic mineral mining	0.	0.	0.	0.	0.	0.	0.	0.
Crushed and broken stone	0.	0.	0.	0.	0.	0.	0.	0.
Clay, ceramic, etc., minerals	0.	0.	0.	0.	0.	0.	0.	0.
Chemical and fertilizer minerals	0.	0.	0.	0.	0.	0.	0.	0.
Construction	0.	0.	0.	0.	0.	0.	0.	0.
General building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Residential building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Operative builders	0.	0.	0.	0.	0.	0.	0.	0.
Nonresidential building contractors	0.	0.	0.	0.	0.	0.	0.	0.
Other construction contractors	0.	0.	0.	0.	0.	0.	0.	0.
Highway and street construction	0.	0.	0.	0.	0.	0.	0.	0.
Heavy construction except highway	0.	0.	0.	0.	0.	0.	0.	0.
Special trade contractors	0.	0.	0.	0.	0.	0.	0.	0.
Plumbing, heating, air conditioning	0.	0.	0.	0.	0.	0.	0.	0.
Electrical work	0.	0.	0.	0.	0.	0.	0.	0.
Roofing, sheet metal work	0.	0.	0.	0.	0.	0.	0.	0.
Concrete work	0.	0.	0.	0.	0.	0.	0.	0.
Misc. special trade contractors	0.	0.	0.	0.	0.	0.	0.	0.
Manufacturing	100.0	39.1	29.8	25.9	32.8	28.4	17.2	0.
Durable goods manufacturing	0.	3.4	20.7	25.9	24.7	15.9	16.1	0.
Lumber and wood products	0.	0.	0.	0.	0.	0.	0.	0.
Logging camps and contractors	0.	0.	0.	0.	0.	0.	0.	0.
Sawmills and planing mills	0.	0.	0.	0.	0.	0.	0.	0.
Millwork, and related products	0.	0.	0.	0.	0.	0.	0.	0.
Wood buildings and mobile homes	0.	0.	0.	0.	0.	0.	0.	0.
Misc. wood products	0.	0.	0.	0.	0.	0.	0.	0.
Furniture and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Household furniture	0.	0.	0.	0.	0.	0.	0.	0.
Office furniture	0.	0.	0.	0.	0.	0.	0.	0.
Public building furniture	0.	0.	0.	0.	0.	0.	0.	0.
Partitions and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Misc. furniture and fixtures	0.	0.	0.	0.	0.	0.	0.	0.
Stone, clay and glass products	0.	0.	0.	0.	0.	0.	0.	0.
Flat glass	0.	0.	0.	0.	0.	0.	0.	0.
Glass and glassware, pressed or blown	0.	0.	0.	0.	0.	0.	0.	0.
Products of purchased glass	0.	0.	0.	0.	0.	0.	0.	0.
Hydraulic cement	0.	0.	0.	0.	0.	0.	0.	0.
Structural clay products	0.	0.	0.	0.	0.	0.	0.	0.
Pottery and related products	0.	0.	0.	0.	0.	0.	0.	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	0.	0.	0.	0.
Misc. nonmetallic mineral products	0.	0.	0.	0.	0.	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Primary metals	0.	0.	0.	0.	0.	0.	0.	0.
Blast furnace and primary steel products	0.	0.	0.	0.	0.	0.	0.	0.
Iron and steel foundries	0.	0.	0.	0.	0.	0.	0.	0.
Primary nonferrous metals	0.	0.	0.	0.	0.	0.	0.	0.
Secondary nonferrous metals	0.	0.	0.	0.	0.	0.	0.	0.
Nonferrous rolling and drawing	0.	0.	0.	0.	0.	0.	0.	0.
Nonferrous foundries	0.	0.	0.	0.	0.	0.	0.	0.
Misc. primary metal products	0.	0.	0.	0.	0.	0.	0.	0.
Fabricated metal products	0.	0.	.4	0.	0.	.8	0.	0.
Metal cans and shipping containers	0.	0.	0.	0.	0.	0.	0.	0.
Cutlery, handtools, and hardware	0.	0.	0.	0.	0.	0.	0.	0.
Plumbing and heating products	0.	0.	0.	0.	0.	0.	0.	0.
Fabricated structural metal products	0.	0.	.1	0.	0.	.3	0.	0.
Screw machine products, bolts, etc.	0.	0.	0.	0.	0.	0.	0.	0.
Metal forgings and stampings	0.	0.	.2	0.	0.	.5	0.	0.
Coating, engraving and allied services	0.	0.	0.	0.	0.	0.	0.	0.
Ordnance and accessories	0.	0.	0.	0.	0.	0.	0.	0.
Misc. fabricated metal products	0.	0.	0.	0.	0.	0.	0.	0.
Machinery	0.	0.	.7	0.	0.	1.5	0.	0.
Engines and turbines	0.	0.	0.	0.	0.	0.	0.	0.
Farm and garden machinery	0.	0.	0.	0.	0.	0.	0.	0.
Construction and related machinery	0.	0.	.6	0.	0.	1.2	0.	0.
Metalworking machinery	0.	0.	0.	0.	0.	0.	0.	0.
Special industry machinery	0.	0.	0.	0.	0.	0.	0.	0.
General industrial machinery	0.	0.	.2	0.	0.	.4	0.	0.
Office and computing machines	0.	0.	0.	0.	0.	0.	0.	0.
Refrigeration and service industry machinery	0.	0.	0.	0.	0.	0.	0.	0.
Misc. machinery	0.	0.	0.	0.	0.	0.	0.	0.
Electrical machinery	0.	0.	6.9	25.9	0.	7.1	11.8	0.
Electrical distribution equipment	0.	0.	0.	0.	0.	0.	0.	0.
Electrical industrial apparatus	0.	0.	.3	0.	0.	.6	0.	0.
Household appliances	0.	0.	0.	0.	0.	0.	0.	0.
Electrical lighting and wiring equipment	0.	0.	.2	0.	0.	.5	0.	0.
Radio and TV receiving equipment	0.	0.	0.	0.	0.	0.	0.	0.
Communications equipment	0.	0.	5.8	25.9	0.	4.8	11.8	0.
Electronic components and accessories	0.	0.	.4	0.	0.	.8	0.	0.
Misc. electrical equipment	0.	0.	.2	0.	0.	.5	0.	0.
Transportation equipment	0.	0.	11.8	0.	24.7	4.6	4.3	0.
Motor vehicles and equipment	0.	0.	4.1	0.	10.6	0.	0.	0.
Aircraft and parts	0.	0.	7.4	0.	14.2	4.1	4.3	0.
Ship and boat building and repairing	0.	0.	0.	0.	0.	0.	0.	0.
Railroad equipment	0.	0.	0.	0.	0.	0.	0.	0.
Guided missiles and space vehicles	0.	0.	.3	0.	0.	.6	0.	0.
Misc. transportation equipment	0.	0.	0.	0.	0.	0.	0.	0.
Instruments	0.	3.4	.9	0.	0.	1.8	0.	0.
Engineering and scientific instruments	0.	0.	0.	0.	0.	0.	0.	0.
Measuring and controlling instruments	0.	0	.7	0.	0.	1.4	0.	0.
Optical instruments and lenses	0.	0.	0.	0.	0.	0.	0.	0.
Medical instruments and supplies	0.	3.4	.2	0.	0.	.4	0.	0.
Ophthalmic goods	0.	0.	0.	0.	0.	0.	0.	0.
Photographic equipment and supplies	0.	0.	0.	0.	0.	0.	0.	0.
Watches, clocks, and watchcases	0.	0.	0.	0.	0.	0.	0.	0.
Miscellaneous manufacturing	0.	0.	0.	0.	0.	0.	0.	0.
Musical instruments and parts	0.	0.	0.	0.	0.	0.	0.	0.
Toys and sporting goods	0.	0.	0.	0.	0.	0.	0.	0.
Pens, pencils, office and art supplies	0.	0.	0.	0.	0.	0.	0.	0.
Costume jewelry and notions	0.	0.	0.	0.	0.	0.	0.	0.
Misc. manufacturers	0.	0.	0.	0.	0.	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Nondurable goods	100.0	35.7	9.1	0.	8.1	12.6	1.2	0.
Food and food products	0.	2.8	0.	0.	0.	0.	0.	0.
Meat products	0.	0.	0.	0.	0.	0.	0.	0.
Dairy products	0.	0.	0.	0.	0.	0.	0.	0.
Canned and preserved fruits and vegetables	0.	1.6	0.	0.	0.	0.	0.	0.
Grain mill products	0.	.2	0.	0.	0.	0.	0.	0.
Bakery products	0.	0.	0.	0.	0.	0.	0.	0.
Sugar and confectionery products	0.	.3	0.	0.	0.	0.	0.	0.
Fats and oils	0.	0.	0.	0.	0.	0.	0.	0.
Beverages	0.	.7	0.	0.	0.	0.	0.	0.
Misc. food and kindred products	0.	0.	0.	0.	0.	0.	0.	0.
Tobacco manufactures	0.	0.	0.	0.	0.	0.	0.	0.
Cigarettes	0.	0.	0.	0.	0.	0.	0.	0.
Textiles	0.	0.	0.	0.	0.	0.	0.	0.
Weaving mills, cotton	0.	0.	0.	0.	0.	0.	0.	0.
Weaving mills, synthetics	0.	0.	0.	0.	0.	0.	0.	0.
Knitting mills	0.	0.	0.	0.	0.	0.	0.	0.
Textile finishing, except wools	0.	0.	0.	0.	0.	0.	0.	0.
Floor covering mills	0.	0.	0.	0.	0.	0.	0.	0.
Yarn and thread mills	0.	0.	0.	0.	0.	0.	0.	0.
Misc. textile goods	0.	0.	0.	0.	0.	0.	0.	0.
Apparel	0.	0.	0.	0.	0.	0.	0.	0.
Men's and boys' furnishings	0.	0.	0.	0.	0.	0.	0.	0.
Women's and misses' outerwear	0.	0.	0.	0.	0.	0.	0.	0.
Women's and children's undergarments	0.	0.	0.	0.	0.	0.	0.	0.
Misc. fabricated textiles	0.	0.	0.	0.	0.	0.	0.	0.
Paper and allied products	0.	1.4	.2	0.	0.	.4	0.	0.
Pulp mills	0.	0.	0.	0.	0.	0.	0.	0.
Paper mills, except building paper	0.	1.4	.2	0.	0.	.4	0.	0.
Paperboard mills	0.	0.	0.	0.	0.	0.	0.	0.
Misc. converted paper products	0.	0.	0.	0.	0.	0.	0.	0.
Paperboard containers and boxes	0.	0.	0.	0.	0.	0.	0.	0.
Printing and publishing	0.	0.	1.3	0.	.6	2.2	1.0	0.
Newspapers	0.	0.	.3	0.	0.	.5	.4	0.
Periodicals	0.	0.	.6	0.	.6	.8	.3	0.
Books	0.	0.	0.	0.	0.	0.	0.	0.
Misc. publishing	0.	0.	.3	0.	0.	.7	0.	0.
Commercial printing	0.	0.	.1	0.	0.	.2	.3	0.
Manifold business forms	0.	0.	0.	0.	0.	0.	0.	0.
Greeting card publishing	0.	0.	0.	0.	0.	0.	0.	0.
Chemicals	100.0	31.5	5.0	0.	4.6	6.7	0.	0.
Industrial inorganic chemicals	0.	1.4	.3	0.	0.	.6	0.	0.
Plastics materials and synthetics	0.	.3	1.1	0.	0.	2.4	0.	0.
Drugs	90.0	24.9	1.5	0.	3.0	.8	0.	0.
Soaps, cleaners, and toilet goods	0.	.4	.3	0.	0.	.6	0.	0.
Paints and allied products	0.	0.	0.	0.	0.	0.	0.	0.
Industrial organic chemicals	10.0	3.2	1.4	0.	1.1	2.0	0.	0.
Agricultural chemicals	0.	0.	.2	0.	.6	0.	0.	0.
Misc. chemical products	0.	1.4	.1	0.	0.	.3	0.	0.
Refined petroleum products	0.	0.	2.5	0.	2.9	2.9	0.	0.
Petroleum refining	0.	0.	2.5	0.	2.9	2.9	0.	0.
Paving and roofing materials	0.	0.	0.	0.	0.	0.	0.	0.
Misc. petroleum and coal products	0.	0.	0.	0.	0.	0.	0.	0.
Rubber and plastic products	0.	0.	.2	0.	0.	.4	.2	0.
Tires and inner tubes	0.	0.	.1	0.	0.	.2	0.	0.
Rubber and plastic hose and belting	0.	0.	0.	0.	0.	0.	0.	0.
Fabricated rubber products, n.e.c.	0.	0.	0.	0.	0.	0.	0.	0.
Misc. plastic products	0.	0.	.1	0.	0.	.2	.2	0.
Leather products	0.	0.	0.	0.	0.	0.	0.	0.
Footwear, except rubber	0.	0.	0.	0.	0.	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1960—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Transportation, communications, public utilities	0.	0.	1.7	0.	0.	3.7	.8	2.3
Transportation, except railroads	0.	0.	.3	0.	0.	.5	0.	0.
Trucking and warehousing	0.	0.	.2	0.	0.	.4	0.	0.
Water transportation	0.	0.	0.	0.	0.	0.	0.	0.
Air transportation	0.	0.	0.	0.	0.	0.	0.	0.
Pipelines, except natural gas	0.	0.	0.	0.	0.	0.	0.	0.
Transportation services	0.	0.	.1	0.	0.	.2	0.	0.
Communication	0.	0.	1.5	0.	0.	3.1	.8	2.3
Telephone	0.	0.	1.3	0.	0.	2.8	.8	2.3
Radio and TV broadcasting	0.	0.	.2	0.	0.	.3	0.	0.
Electric, gas and sanitary services	0.	0.	0.	0.	0.	0.	0.	0.
Wholesale and retail trade	0.	4.7	2.4	0.	3.7	2.1	2.3	2.6
Wholesale trade	0.	4.3	1.0	0.	1.1	1.2	1.1	2.6
Durable goods wholesalers	0.	.0	.6	0.	.8	.7	.7	1.9
Nondurable goods wholesalers	0.	4.3	.4	0.	.3	.5	.4	.7
Retail trade	0.	.4	1.4	0.	2.6	.9	1.2	0.
Building materials and garden supplies	0.	0.	.0	0.	0.	.1	0.	0.
General merchandise stores	0.	0.	.6	0.	1.2	.3	.7	0.
Food stores	0.	0.	.2	0.	0.	.5	.4	0.
Auto dealers and service stations	0.	.0	.0	0.	0.	.0	.1	0.
Furniture and home furnishing stores	0.	0.	0.	0.	0.	0.	.0	0.
Eating and drinking places	0.	0.	0.	0.	0.	0.	0.	0.
Misc. retail stores	0.	.3	.6	0.	1.4	.0	.0	0.
Finance, insurance and real estate	0.	0.	28.5	0.	25.0	39.6	9.2	27.9
Banking	0.	0.	0.	0.	0.	0.	4.8	15.8
Federal Reserve banks	0.	0.	0.	0.	0.	0.	2.1	7.0
Commercial and stock saving banks	0.	0.	0.	0.	0.	0.	2.7	8.8
Mutual savings banks	0.	0.	0.	0.	0.	0.	0.	0.
Other credit agencies	0.	0.	.2	0.	0.	.4	0.	0.
Personal credit institutions	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity brokers and dealers	0.	0.	1.8	0.	4.2	.4	3.4	8.9
Security brokers and dealers	0.	0.	.3	0.	.9	0.	2.7	8.9
Security and commodity services	0.	0.	1.3	0.	3.3	0.	0.	0.
Insurance	0.	0.	26.5	0.	20.8	38.8	1.0	3.2
Life insurance	0.	0.	14.2	0.	11.1	20.7	.4	1.3
Medical services and health insurance	0.	0.	2.4	0.	1.8	3.5	.6	1.9
Fire, marine and casualty insurance	0.	0.	5.0	0.	4.8	6.6	0.	0.
Insurance agents, brokers, and service	0.	0.	4.6	0.	3.1	7.1	0.	0.
Real estate	0.	0.	0.	0.	0.	0.	0.	0.
Real estate operators and lessors	0.	0.	0.	0.	0.	0.	0.	0.
Subdividers and developers	0.	0.	0.	0.	0.	0.	0.	0.
Investment and holding companies	0.	0.	1.5	7.6	1.2	0.	7.2	2.4
Holding company offices	0.	0.	.2	0.	.6	0.	.4	1.2
Misc. investing	0.	0.	.3	2.3	0.	0.	1.4	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists							
	Medical	All other life	Total mathematical	Mathematicians	Statisticians	All other mathematical	Social	Economists
Services	0.	56.2	35.1	74.1	38.5	21.2	70.5	67.2
Hotels, motels, and lodging places	0.	0.	0.	0.	0.	0.	0.	0.
Business services	0.	5.1	16.6	50.5	20.4	3.7	38.0	48.9
Advertising	0.	0.	.5	0.	1.2	0.	0.	0.
Mailing, reproduction, etc. services	0.	0.	0.	0.	0.	0.	0.	0.
Personnel supply services	0.	0.	0.	0.	0.	0.	0.	0.
Computer and data processing services	0.	0.	2.6	0.	2.1	3.7	.7	0.
Misc. business services	0.	5.1	13.5	50.5	17.1	0.	37.3	48.9
Repair services	0.	0.	0.	0.	0.	0.	0.	0.
Electrical repair services	0.	0.	0.	0.	0.	0.	0.	0.
Misc. repair services	0.	0.	0.	0.	0.	0.	0.	0.
Motion pictures	0.	0.	0.	0.	0.	0.	0.	0.
Motion picture production	0.	0.	0.	0.	0.	0.	0.	0.
Other services	0.	51.1	18.6	23.6	18.1	17.5	32.5	18.3
Medical and dental laboratories	0.	0.	0.	0.	0.	0.	0.	0.
Job training and vocational rehabilitation	0.	0.	0.	0.	0.	0.	2.1	0.
Business associations	0.	0.	2.4	0.	6.2	0.	1.3	1.9
Professional membership organizations	0.	0.	.7	0.	1.8	0.	0.	0.
Civic, social and fraternal organizations	0.	0.	1.3	0.	3.3	0.	2.7	0.
Religious organizations	0.	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	0.	7.2	2.8	15.8	.8	.7	2.7	4.5
Noncommercial educational, scientific and research organizations	0.	43.9	2.2	7.7	2.5	.4	19.1	11.9
Accounting, auditing and bookkeeping	0.	0.	1.4	0.	0.	2.9	0.	0.
Services, n.e.c.	0.	0.	7.1	0.	1.7	13.5	2.6	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mining	0.	0.	0.	2.1	2.1	2.1	2.4	.5
Metallic minerals	0.	0.	0.	.0	.2	.1	.1	0.
Iron ore	0.	0.	0.	0.	.0	.0	.0	0.
Copper ore	0.	0.	0.	.0	.0	.0	.0	0.
Lead and zinc ores	0.	0.	0.	0.	.0	.0	0.	0.
Ferroalloy ores, except vanadium	0.	0.	0.	0.	.0	0.	0.	0.
Metal mining services	0.	0.	0.	0.	.0	.0	.0	0.
Misc. metallic ores	0.	0.	0.	0.	.1	.1	.1	0.
Coal	0.	0.	0.	.1	.2	.2	.3	0.
Bituminous and lignite	0.	0.	0.	.1	.2	.2	.3	0.
Oil and gas extraction	0.	0.	0.	2.0	1.6	1.7	1.9	.5
Crude petroleum and natural gas	0.	0.	0.	1.7	1.1	1.1	1.5	.1
Oil and gas services	0.	0.	0.	.2	.5	.6	.4	.4
Nonmetallic mineral mining	0.	0.	0.	0.	.1	.1	.0	0.
Crushed and broken stone	0.	0.	0.	0.	.0	.0	0.	0.
Clay, ceramic, etc., minerals	0.	0.	0.	0.	.0	.0	0.	0.
Chemical and fertilizer minerals	0.	0.	0.	0.	.1	.0	.0	0.
Construction	0.	0.	0.	1.0	4.4	5.8	8.8	5.9
General building contractors	0.	0.	0.	.2	.9	1.2	2.8	.2
Residential building contractors	0.	0.	0.	0.	.3	.4	1.1	0.
Operative builders	0.	0.	0.	0.	.0	.1	.2	.0
Nonresidential building contractors	0.	0.	0.	.2	.6	.7	1.5	.2
Other construction contractors	0.	0.	0.	.8	1.3	1.6	2.9	.1
Highway and street construction	0.	0.	0.	.0	.1	.1	0.	0.
Heavy construction except highway	0.	0.	0.	.8	1.1	1.4	2.9	.1
Special trade contractors	0.	0.	0.	0.	2.2	3.1	3.1	5.6
Plumbing, heating, air conditioning	0.	0.	0.	0.	.3	.4	1.3	0.
Electrical work	0.	0.	0.	0.	1.6	2.3	.9	5.6
Roofing, sheet metal work	0.	0.	0.	0.	.0	.0	.0	0.
Concrete work	0.	0.	0.	0.	.0	.0	.0	0.
Misc. special trade contractors	0.	0.	0.	0.	.2	.3	.8	0.
Manufacturing	0.	0.	34.5	25.3	44.9	43.9	39.7	40.1
Durable goods manufacturing	0.	0.	32.1	18.5	35.5	40.6	37.2	39.3
Lumber and wood products	0.	0.	0.	.1	.3	.2	.6	0.
Logging camps and contractors	0.	0.	0.	0.	.0	.0	0.	0.
Sawmills and planing mills	0.	0.	0.	0.	.0	.0	0.	0.
Millwork, and related products	0.	0.	0.	.1	.1	.1	.3	0.
Wood buildings and mobile homes	0.	0.	0.	0.	.1	.1	.2	0.
Misc. wood products	0.	0.	0.	0.	.0	.0	.0	0.
Furniture and fixtures	0.	0.	0.	.2	.3	.3	.7	0.
Household furniture	0.	0.	0.	.1	.1	.1	.1	0.
Office furniture	0.	0.	0.	.0	.0	.0	.1	0.
Public building furniture	0.	0.	0.	0.	.0	.0	.1	0.
Partitions and fixtures	0.	0.	0.	0.	.1	.1	.3	0.
Misc. furniture and fixtures	0.	0.	0.	.0	.0	.0	.1	0.
Stone, clay and glass products	0.	0.	0.	.2	.7	.6	.9	.1
Flat glass	0.	0.	0.	.0	.0	.0	.0	0.
Glass and glassware, pressed or blown	0.	0.	0.	.1	.1	.1	.1	.1
Products of purchased glass	0.	0.	0.	0.	.0	.0	.0	0.
Hydraulic cement	0.	0.	0.	.0	.1	.0	.0	.0
Structural clay products	0.	0.	0.	.0	.0	.0	.0	0.
Pottery and related products	0.	0.	0.	0.	.0	.0	.0	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	.1	.1	.4	0.
Misc. nonmetallic mineral products	0.	0.	0.	.1	.2	.2	.2	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Primary metals	0.	0.	0.	1.1	1.4	1.5	1.1	.4
Blast furnace and primary steel products	0.	0.	0.	.6	.7	.7	.5	.2
Iron and steel foundries	0.	0.	0.	.1	.2	.2	.2	0.
Primary nonferrous metals	0.	0.	0.	.1	.1	.1	.1	.1
Secondary nonferrous metals	0.	0.	0.	0.	.0	.0	.0	0.
Nonferrous rolling and drawing	0.	0.	0.	.2	.3	.4	.3	.1
Nonferrous foundries	0.	0.	0.	0.	.1	.1	.1	0.
Misc. primary metal products	0.	0.	0.	0.	.0	.0	0.	0.
Fabricated metal products	0.	0.	0.	1.0	2.8	3.4	7.1	.3
Metal cans and shipping containers	0.	0.	0.	0.	.0	.0	.0	.0
Cutlery, handtools, and hardware	0.	0.	0.	.1	.2	.2	.2	.0
Plumbing and heating products	0.	0.	0.	.1	.1	.1	.3	.0
Fabricated structural metal products	0.	0.	0.	.4	1.4	1.9	4.9	0.
Screw machine products, bolts, etc.	0.	0.	0.	.1	.1	.1	.2	0.
Metal forgings and stampings	0.	0.	0.	0.	.2	.2	.3	0.
Coating, engraving and allied services	0.	0.	0.	0.	.0	.0	.1	0.
Ordnance and accessories	0.	0.	0.	.1	.2	.3	.2	.2
Misc. fabricated metal products	0.	0.	0.	.2	.5	.6	1.0	.1
Machinery	0.	0.	0.	6.5	11.3	12.8	13.4	12.1
Engines and turbines	0.	0.	0.	.2	.5	.5	.5	0.
Farm and garden machinery	0.	0.	0.	.2	.3	.4	.4	.1
Construction and related machinery	0.	0.	0.	.5	1.4	1.8	3.0	.3
Metalworking machinery	0.	0.	0.	.2	1.0	1.3	2.[illegible]	.5
Special industry machinery	0.	0.	0.	0.	.8	1.0	1.9	0.
General industrial machinery	0.	0.	0.	.3	1.1	1.4	2.0	.4
Office and computing machines	0.	0.	0.	4.9	5.5	5.3	1.8	10.6
Refrigeration and service industry machinery	0.	0.	0.	.1	.4	.5	.8	.2
Misc. machinery	0.	0.	0.	0.	.3	.4	.7	.1
Electrical machinery	0.	0.	23.5	5.1	9.7	12.0	6.8	19.4
Electrical distribution equipment	0.	0.	0.	.1	.4	.6	.8	.5
Electrical industrial apparatus	0.	0.	0.	.3	.9	1.1	1.0	1.4
Household appliances	0.	0.	0.	.2	.2	.2	.2	.2
Electrical lighting and wiring equipment	0.	0.	0.	.2	.3	.4	.4	.3
Radio and TV receiving equipment	0.	0.	0.	.2	.3	.3	.2	.6
Communications equipment	0.	0.	23.5	3.1	4.2	5.1	2.5	9.1
Electronic components and accessories	0.	0.	0.	.8	3.0	3.8	1.3	6.8
Misc. electrical equipment	0.	0.	0.	.1	.4	.4	.3	.5
Transportation equipment	0.	0.	8.6	3.3	5.2	5.9	3.5	1.9
Motor vehicles and equipment	0.	0.	0.	.5	.8	.9	.7	0.
Aircraft and parts	0.	0.	8.6	2.4	3.0	3.4	1.7	1.8
Ship and boat building and repairing	0.	0.	0.	0.	.4	.4	.8	.1
Railroad equipment	0.	0.	0.	.1	.1	.2	.2	.0
Guided missiles and space vehicles	0.	0.	0.	.3	.8	.9	0.	0.
Misc. transportation equipment	0.	0.	0.	0.	.1	.1	.1	.0
Instruments	0.	0.	0.	.9	3.5	3.7	2.7	4.8
Engineering and scientific instruments	0.	0.	0.	.2	.9	.9	.6	1.2
Measuring and controlling instruments	0.	0.	0.	.5	1.3	1.7	1.2	2.5
Optical instruments and lenses	0.	0.	0.	.1	.3	.3	.1	.2
Medical instruments and supplies	0.	0.	0.	.1	.5	.3	.3	.3
Ophthalmic goods	0.	0.	0.	.0	.0	.0	.0	0.
Photographic equipment and supplies	0.	0.	0.	0.	.5	.5	.4	.6
Watches, clocks, and watchcases	0.	0.	0.	0.	.0	.0	.0	.0
Miscellaneous manufacturing	0.	0.	0.	.2	.3	.3	.4	.3
Musical instruments and parts	0.	0.	0.	0.	.0	.1	.0	.1
Toys and sporting goods	0.	0.	0.	.1	.1	.1	.1	.0
Pens, pencils, office and art supplies	0.	0.	0.	.0	.0	.0	.0	0.
Costume jewelry and notions	0.	0.	0.	.0	.0	.0	.0	0.
Misc. manufacturers	0.	0.	0.	0.	.1	.2	.2	.1

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Nondurable goods	0.	0.	2.3	6.8	9.3	3.3	2.5	.9
Food and food products	0.	0.	0.	.2	1.1	.1	.1	0.
Meat products	0.	0.	0.	0.	.1	0.	0.	0.
Dairy products	0.	0.	0.	0.	.1	.0	0.	0.
Canned and preserved fruits and vegetables	0.	0.	0.	0.	.2	.0	0.	0.
Grain mill products	0.	0.	0.	.1	.2	.0	.0	0.
Bakery products	0.	0.	0.	0.	.1	.0	0.	0.
Sugar and confectionery products	0.	0.	0.	.1	.1	.0	.1	0.
Fats and oils	0.	0.	0.	0.	.0	0.	0.	0.
Beverages	0.	0.	0.	0.	.1	.0	0.	0.
Misc. food and kindred products	0.	0.	0.	0.	.1	.0	0.	0.
Tobacco manufactures	0.	0.	0.	.1	.2	.0	0.	0.
Cigarettes	0.	0.	0.	.1	.1	.0	0.	0.
Textiles	0.	0.	0.	.4	.9	.2	0.	0.
Weaving mills, cotton	0.	0.	0.	0.	.1	.0	0.	0.
Weaving mills, synthetics	0.	0.	0.	.1	.1	.0	0.	0.
Knitting mills	0.	0.	0.	.1	.1	.0	0.	0.
Textile finishing, except wools	0.	0.	0.	.0	.1	.0	0.	0.
Floor covering mills	0.	0.	0.	.0	.4	.1	0.	0.
Yarn and thread mills	0.	0.	0.	0.	.0	.0	0.	0.
Misc. textile goods	0.	0.	0.	.0	.1	.0	0.	0.
Apparel	0.	0.	0.	0.	.1	.0	0.	0.
Men's and boys' furnishings	0.	0.	0.	0.	.1	.0	0.	0.
Women's and misses' outerwear	0.	0.	0.	0.	.0	.0	0.	0.
Women's and children's undergarments	0.	0.	0.	0.	.0	.0	0.	0.
Misc. fabricated textiles	0.	0.	0.	0.	.0	.0	0.	0.
Paper and allied products	0.	0.	0.	.4	.4	.3	.3	0.
Pulp mills	0.	0.	0.	0.	.0	.0	.0	0.
Paper mills, except building paper	0.	0.	0.	.2	.2	.1	.1	0.
Paperboard mills	0.	0.	0.	.0	.1	.0	.0	0.
Misc. converted paper products	0.	0.	0.	.2	.1	.1	.1	0.
Paperboard containers and boxes	0.	0.	0.	0.	.0	.0	.1	0.
Printing and publishing	0.	0.	1.9	1.1	.5	.2	.1	.2
Newspapers	0.	0.	.8	.6	.1	.1	0.	.2
Periodicals	0.	0.	.6	.2	.1	.0	0.	0.
Books	0.	0.	0.	.2	.1	.0	0.	0.
Misc. publishing	0.	0.	0.	.1	.0	.0	.1	0.
Commercial printing	0.	0.	.6	0.	.1	.0	0.	0.
Manifold business forms	0.	0.	0.	.1	.0	.0	0.	.0
Greeting card publishing	0.	0.	0.	0.	.1	.0	0.	0.
Chemicals	0.	0.	0.	3.4	4.5	1.5	1.2	.5
Industrial inorganic chemicals	0.	0.	0.	.4	.7	.4	.2	.1
Plastics materials and synthetics	0.	0.	0.	.5	.8	.4	.3	.2
Drugs	0.	0.	0.	1.3	1.1	.1	.1	0.
Soaps, cleaners, and toilet goods	0.	0.	0.	.2	.2	.0	.1	.0
Paints and allied products	0.	0.	0.	.0	.2	.0	0.	0
Industrial organic chemicals	0.	0.	0.	.8	1.1	.4	.3	.1
Agricultural chemicals	0.	0.	0.	.1	.2	.1	.1	.0
Misc. chemical products	0.	0.	0.	.1	.3	.1	.1	.0
Refined petroleum products	0.	0.	0.	1.1	.7	.4	.3	.2
Petroleum refining	0.	0.	0.	1.1	.7	.4	.3	.2
Paving and roofing materials	0.	0.	0.	0.	.0	.0	0.	0.
Misc. petroleum and coal products	0.	0.	0.	.0	.0	0.	0.	0.
Rubber and plastic products	0.	0.	.4	.2	.8	.5	.5	0.
Tires and inner tubes	0.	0.	0.	.1	.2	.1	.0	0.
Rubber and plastic hose and belting	0.	0.	0.	0.	.0	.0	.0	0.
Fabricated rubber products, n.e.c.	0.	0.	0.	.0	.1	.1	.1	0.
Misc. plastic products	0.	0.	.4	0.	.4	.3	.4	0.
Leather products	0.	0.	0.	0.	.0	.0	0.	0.
Footwear, except rubber	0.	0.	0.	0.	.0	.0	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Transportation, communications, public utilities	0.	0.	.2	6.8	7.5	7.7	4.2	9.8
Transportation, except railroads	0.	0.	0.	1.5	1.3	.5	.1	.7
Trucking and warehousing	0.	0.	0.	.4	.1	.0	0.	0.
Water transportation	0.	0.	0.	.2	.8	.2	0.	0.
Air transportation	0.	0.	0.	.8	.3	.1	0.	.3
Pipelines, except natural gas	0.	0.	0.	.0	.1	.1	.1	.3
Transportation services	0.	0.	0.	.1	.0	.0	0.	0.
Communication	0.	0.	.2	2.7	2.6	3.1	1.7	5.5
Telephone	0.	0.	.2	2.5	2.3	2.9	1.7	4.9
Radio and TV broadcasting	0.	0.	0.	.2	.3	.3	0.	.6
Electric, gas and sanitary services	0.	0.	0.	2.6	3.6	4.1	2.5	3.7
Wholesale and retail trade	0.	0.	3.0	17.5	10.4	11.0	2.0	28.2
Wholesale trade	0.	0.	.6	16.8	9.4	10.7	1.5	27.9
Durable goods wholesalers	0.	0.	.3	14.3	8.5	10.5	1.4	27.5
Nondurable goods wholesalers	0.	0.	.4	2.5	.9	.2	.1	.3
Retail trade	0.	0.	2.3	.8	1.0	.3	.5	.3
Building materials and garden supplies	0.	0.	0.	.0	.1	.1	.2	.0
General merchandise stores	0.	0.	1.4	.3	.4	.0	.1	.0
Food stores	0.	0.	.8	.1	.0	.0	.0	0.
Auto dealers and service stations	0.	0.	.1	.0	.1	.0	.0	.0
Furniture and home furnishing stores	0.	0.	.0	.0	.1	.1	.1	.2
Eating and drinking places	0.	0.	0.	.1	.1	.0	0.	0.
Misc. retail stores	0.	0.	.0	.1	.3	.0	.1	.1
Finance, insurance and real estate	0.	0.	1.3	15.4	2.5	.3	.6	0.
Banking	0.	0.	0.	5.3	.6	.0	0.	0.
Federal Reserve banks	0.	0.	0.	.4	.0	0.	0.	0.
Commercial and stock saving banks	0.	0.	0.	4.9	.6	.0	0.	0.
Mutual savings banks	0.	0.	0.	.2	.0	0.	0.	0.
Other credit agencies	0.	0.	0.	.5	.1	0.	0.	0.
Personal credit institutions	0.	0.	0.	.2	.1	0.	0.	0.
Security and commodity brokers and dealers	0.	0.	1.3	1.0	.1	0.	0.	0.
Security brokers and dealers	0.	0.	0.	.6	.1	0.	0.	0.
Security and commodity services	0.	0.	0.	.4	.0	0.	0.	0.
Insurance	0.	0.	0.	8.4	1.4	.0	.1	0.
Life insurance	0.	0.	0.	3.6	.7	.0	.0	0.
Medical services and health insurance	0.	0.	0.	1.7	.2	0.	0.	0.
Fire, marine and casualty insurance	0.	0.	0.	2.6	.5	0.	0.	0.
Insurance agents, brokers, and service	0.	0.	0.	.4	.1	.0	.0	0.
Real estate	0.	0.	0.	.2	.3	.3	.5	0.
Real estate operators and lessors	0.	0.	0.	.0	.0	.0	.1	0.
Subdividers and developers	0.	0.	0.	.1	.1	.1	.1	0.
Investment and holding companies	0.	0.	13.0	1.0	.2	.1	0.	0.
Holding company offices	0.	0.	0.	.5	.1	.0	0.	0.
Misc. investing	0.	0.	2.9	0.	.0	.0	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Scientists				Technicians			
	Psychologists	Sociologists	Other social	Computer systems analysts	Total	Total engineering	Drafters	Electrical/electronic
Services	100.0	100.0	61.0	31.8	28.2	29.1	42.4	15.5
Hotels, motels, and lodging places	0.	0.	0.	0.	.1	.1	0.	0.
Business services	63.5	0.	24.1	26.7	11.3	7.4	7.5	8.7
Advertising	0.	0.	0.	.1	.0	.0	0.	0.
Mailing, reproduction, etc. services	0.	0.	0.	.1	.1	.0	.1	0.
Personnel supply services	0.	0.	0.	.5	.8	.8	1.9	0.
Computer and data processing services	0.	0.	1.5	16.2	3.9	1.0	.2	2.2
Misc. business services	63.5	0.	22.6	9.8	6.6	5.6	5.3	6.5
Repair services	0.	0.	0.	0.	1.1	1.6	.1	4.3
Electrical repair services	0.	0.	0.	0.	.8	1.2	0.	3.2
Misc. repair services	0.	0.	0.	0.	.3	.5	.1	1.1
Motion pictures	0.	0.	0.	.0	.1	.2	0.	.3
Motion picture production	0.	0.	0.	.0	.1	.1	0.	.2
Other services	36.5	100.0	36.9	5.0	15.6	19.9	34.7	2.2
Medical and dental laboratories	0.	0.	0.	0.	.0	0.	0.	0.
Job training and vocational rehabilitation	0.	0.	4.1	0.	.0	.0	0.	0.
Business associations	0.	0.	1.4	0.	.3	.3	0.	0.
Professional membership organizations	0.	0.	0.	0.	.0	.0	0.	0.
Civic, social and fraternal organizations	0.	100.0	1.2	0.	.0	0.	0.	0.
Religious organizations	0.	0.	0.	0.	.1	0.	0.	0.
Engineering and architectural services	0.	0.	2.6	1.7	13.4	18.5	34.6	1.9
Noncommercial educational, scientific and research organizations	24.1	0.	22.6	.6	1.3	.9	.1	.3
Accounting, auditing and bookkeeping	0.	0.	0.	2.6	.3	.0	0.	0.
Services, n.e.c.	12.4	0.	.9	.1	.1	.1	.1	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mining	5.8	0.	0.	0.	100.0	3.7	3.6	0.
Metallic minerals	.7	0.	0.	0.	0.	.3	.7	0.
Iron ore	.2	0.	0.	0.	0.	.0	.1	0.
Copper ore	.2	0.	0.	0.	0.	.0	.1	0.
Lead and zinc ores	0.	0.	0.	0.	0.	.1	.1	0.
Ferroalloy ores, except vanadium	0.	0.	0.	0.	0.	0.	.1	0.
Metal mining services	0.	0.	0.	0.	0.	.1	.1	0.
Misc. metallic ores	.4	0.	0.	0.	0.	.1	.3	0.
Coal	2.5	0.	0.	0.	0.	.3	.2	0.
Bituminous and lignite	2.5	0.	0.	0.	0.	.3	.2	0.
Oil and gas extraction	2.3	0.	0.	0.	100.0	2.8	2.1	0.
Crude petroleum and natural gas	.7	0.	0.	0.	33.5	2.3	1.8	0.
Oil and gas services	1.6	0.	0.	0.	66.5	.5	.2	0.
Nonmetallic mineral mining	.2	0.	0.	0.	0.	.2	.6	0.
Crushed and broken stone	0.	0.	0.	0.	0.	.1	.1	0.
Clay, ceramic, etc., minerals	0.	0.	0.	0.	0.	.0	.2	0.
Chemical and fertilizer minerals	.2	0.	0.	0.	0.	.1	.3	0.
Construction	12.3	0.	0.	0.	0.	1.9	0.	0.
General building contractors	3.0	0.	0.	0.	0.	.4	0.	0.
Residential building contractors	.9	0.	0.	0.	0.	.0	0.	0.
Operative builders	0.	0.	0.	0.	0.	0.	0.	0.
Nonresidential building contractors	2.2	0.	0.	0.	0.	.4	0.	0.
Other construction contractors	9.3	0.	0.	0.	0.	1.3	0.	0.
Highway and street construction	3.1	0.	0.	0.	0.	.1	0.	0.
Heavy construction except highway	6.2	0.	0.	0.	0.	1.2	0.	0.
Special trade contractors	0.	0.	0.	0.	0.	.2	0.	0.
Plumbing, heating, air conditioning	0.	0.	0.	0.	0.	.1	0.	0.
Electrical work	0.	0.	0.	0.	0.	0.	0.	0.
Roofing, sheet metal work	0.	0.	0.	0.	0.	0.	0.	0.
Concrete work	0.	0.	0.	0.	0.	0.	0.	0.
Misc. special trade contractors	0.	0.	0.	0.	0.	.1	0.	0.
Manufacturing	0.	86.6	0.	0.	0.	63.0	70.7	83.2
Durable goods manufacturing	0.	86.6	0.	0.	0.	52.3	10.8	0.
Lumber and wood products	0.	0.	0.	0.	0.	.3	.5	0.
Logging camps and contractors	0.	0.	0.	0.	0.	.0	.1	0.
Sawmills and planing mills	0.	0.	0.	0.	0.	.1	.2	0.
Millwork, and related products	0.	0.	0.	0.	0.	.1	.1	0.
Wood buildings and mobile homes	0.	0.	0.	0.	0.	.0	0.	0.
Misc. wood products	0.	0.	0.	0.	0.	.0	.1	0.
Furniture and fixtures	0.	0.	0.	0.	0.	.4	0.	0.
Household furniture	0.	0.	0.	0.	0.	.2	0.	0.
Office furniture	0.	0.	0.	0.	0.	.0	0.	0.
Public building furniture	0.	0.	0.	0.	0.	.0	0.	0.
Partitions and fixtures	0.	0.	0.	0.	0.	.1	0.	0.
Misc. furniture and fixtures	0.	0.	0.	0.	0.	.0	0.	0.
Stone, clay and glass products	0.	1.2	0.	0.	0.	1.1	2.1	0.
Flat glass	0.	0.	0.	0.	0.	.1	0.	0.
Glass and glassware, pressed or blown	0.	.3	0.	0.	0.	.1	.4	0.
Products of purchased glass	0.	0.	0.	0.	0.	.1	0.	0.
Hydraulic cement	0.	0.	0.	0.	0.	.1	.3	0.
Structural clay products	0.	0.	0.	0.	0.	.1	.1	0.
Pottery and related products	0.	0.	0.	0.	0.	.1	.2	0.
Concrete, gypsum, and plaster products	0.	0.	0.	0.	0.	.2	.2	0.
Misc. nonmetallic mineral products	0.	.8	0.	0.	0.	.4	1.0	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Primary metals	0.	1.2	0.	0.	0.	4.5	.7	0.
Blast furnace and primary steel products	0.	0.	0.	0.	0.	2.2	.4	0.
Iron and steel foundries	0.	.4	0.	0.	0.	.6	0.	0.
Primary nonferrous metals	0.	0.	0.	0.	0.	.4	.1	0.
Secondary nonferrous metals	0.	0.	0.	0.	0.	.1	.1	0.
Nonferrous rolling and drawing	0.	.8	0.	0.	0.	.9	.1	0.
Nonferrous foundries	0.	0.	0.	0.	0.	.3	0.	0.
Misc. primary metal products	0.	0.	0.	0.	0.	.1	0.	0.
Fabricated metal products	0.	4.7	0.	0.	0.	3.6	.0	0.
Metal cans and shipping containers	0.	0.	0.	0.	0.	.1	0.	0.
Cutlery, handtools, and hardware	0.	.5	0.	0.	0.	.3	0.	0.
Plumbing and heating products	0.	.2	0.	0.	0.	.1	0.	0.
Fabricated structural metal products	0.	1.9	0.	0.	0.	1.1	0.	0.
Screw machine products, bolts, etc.	0.	.3	0.	0.	0.	.2	0.	0.
Metal forgings and stampings	0.	0.	0.	0.	0.	.5	0.	0.
Coating, engraving and allied services	0.	0.	0.	0.	0.	.1	.0	0.
Ordnance and accessories	0.	.8	0.	0.	0.	.6	0.	0.
Misc. fabricated metal products	0.	1.0	0.	0.	0.	.7	0.	0.
Machinery	0.	24.4	0.	0.	0.	14.7	.3	0.
Engines and turbines	0.	2.4	0.	0.	0.	1.3	0.	0.
Farm and garden machinery	0.	.8	0.	0.	0.	1.2	0.	0.
Construction and related machinery	0.	6.5	0.	0.	0.	2.1	0.	0.
Metalworking machinery	0.	1.5	0.	0.	0.	1.6	0.	0.
Special industry machinery	0.	0.	0.	0.	0.	2.2	.2	0.
General industrial machinery	0.	5.6	0.	0.	0.	1.7	.0	0.
Office and computing machines	0.	5.0	0.	0.	0.	3.7	0.	0.
Refrigeration and service industry machinery	0.	1.9	0.	0.	0.	.4	.0	0.
Misc. machinery	0.	.7	0.	0.	0.	.5	0.	0.
Electrical machinery	0.	18.4	0.	0.	0.	9.7	2.2	0.
Electrical distribution equipment	0.	.7	0.	0.	0.	.3	0.	0.
Electrical industrial apparatus	0.	1.9	0.	0.	0.	.9	.2	0.
Household appliances	0.	1.1	0.	0.	0.	.4	.4	0.
Electrical lighting and wiring equipment	0.	.8	0.	0.	0.	.4	.2	0.
Radio and TV receiving equipment	0.	.7	0.	0.	0.	.2	0.	0.
Communications equipment	0.	7.3	0.	0.	0.	3.1	.5	0.
Electronic components and accessories	0.	4.7	0.	0.	0.	3.8	.7	0.
Misc. electrical equipment	0.	1.1	0.	0.	0.	.5	.3	0.
Transportation equipment	0.	29.6	0.	0.	0.	13.7	1.6	0.
Motor vehicles and equipment	0.	5.6	0.	0.	0.	2.4	.1	0.
Aircraft and parts	0.	23.5	0.	0.	0.	5.7	1.4	0.
Ship and boat building and repairing	0.	0.	0.	0.	0.	.5	.1	0.
Railroad equipment	0.	.4	0.	0.	0.	.3	0.	0.
Guided missiles and space vehicles	0.	0.	0.	0.	0.	4.6	0.	0.
Misc. transportation equipment	0.	.2	0.	0.	0.	.1	0.	0.
Instruments	0.	7.1	0.	0.	0.	3.8	3.0	0.
Engineering and scientific instruments	0.	1.7	0.	0.	0.	.6	.2	0.
Measuring and controlling instruments	0.	2.3	0.	0.	0.	1.7	.1	0.
Optical instruments and lenses	0.	.8	0.	0.	0.	.7	.1	0.
Medical instruments and supplies	0.	1.1	0.	0.	0.	.4	1.6	0.
Ophthalmic goods	0.	0.	0.	0.	0.	.1	0.	0.
Photographic equipment and supplies	0.	1.1	0.	0.	0.	.4	1.0	0.
Watches, clocks, and watchcases	0.	.1	0.	0.	0.	.0	0.	0.
Miscellaneous manufacturing	0.	0.	0.	0.	0.	.6	.4	0.
Musical instruments and parts	0.	0.	0.	0.	0.	.0	0.	0.
Toys and sporting goods	0.	0.	0.	0.	0.	.2	.1	0.
Pens, pencils, office and art supplies	0.	0.	0.	0.	0.	.0	.1	0.
Costume jewelry and notions	0.	0.	0.	0.	0.	.1	.0	0.
Misc. manufacturers	0.	0.	0.	0.	0.	.2	.1	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Nondurable goods	0.	0.	0.	0.	0.	10.7	59.9	83.2
Food and food products	0.	0.	0.	0.	0.	.4	9.1	42.5
Meat products	0.	0.	0.	0.	0.	0.	1.3	6.6
Dairy products	0.	0.	0.	0.	0.	.0	1.2	6.3
Canned and preserved fruits and vegetables	0.	0.	0.	0.	0.	.1	1.7	6.8
Grain mill products	0.	0.	0.	0.	0.	0.	1.6	6.4
Bakery products	0.	0.	0.	0.	0.	.1	.4	2.0
Sugar and confectionery products	0.	0.	0.	0.	0.	.1	.7	3.6
Fats and oils	0.	0.	0.	0.	0.	0.	.1	.6
Beverages	0.	0.	0.	0.	0.	.1	1.3	6.3
Misc. food and kindred products	0.	0.	0.	0.	0.	.0	.7	3.8
Tobacco manufactures	0.	0.	0.	0.	0.	.2	0.	0.
Cigarettes	0.	0.	0.	0.	0.	.2	0.	0.
Textiles	0.	0.	0.	0.	0.	.8	6.4	0.
Weaving mills, cotton	0.	0.	0.	0.	0.	.0	.3	0.
Weaving mills, synthetics	0.	0.	0.	0.	0.	.1	.4	0.
Knitting mills	0.	0.	0.	0.	0.	.1	.6	0.
Textile finishing, except wools	0.	0.	0.	0.	0.	.1	1.0	0.
Floor covering mills	0.	0.	0.	0.	0.	.3	2.9	0.
Yarn and thread mills	0.	0.	0.	0.	0.	.1	.3	0.
Misc. textile goods	0.	0.	0.	0.	0.	.2	.7	0.
Apparel	0.	0.	0.	0.	0.	.2	.2	0.
Men's and boys' furnishings	0.	0.	0.	0.	0.	.1	.0	0.
Women's and misses' outerwear	0.	0.	0.	0.	0.	.0	.0	0.
Women's and children's undergarments	0.	0.	0.	0.	0.	.0	.1	0.
Misc. fabricated textiles	0.	0.	0.	0.	0.	.1	.1	0.
Paper and allied products	0.	0.	0.	0.	0.	.9	1.3	0.
Pulp mills	0.	0.	0.	0.	0.	.0	0.	0.
Paper mills, except building paper	0.	0.	0.	0.	0.	.4	.9	0.
Paperboard mills	0.	0.	0.	0.	0.	.1	.1	0.
Misc. converted paper products	0.	0.	0.	0.	0.	.3	.3	0.
Paperboard containers and boxes	0.	0.	0.	0.	0.	.1	0.	0.
Printing and publishing	0.	0.	0.	0.	0.	.6	.0	0.
Newspapers	0.	0.	0.	0.	0.	.1	0.	0.
Periodicals	0.	0.	0.	0.	0.	.1	0.	0.
Books	0.	0.	0.	0.	0.	.0	0.	0.
Misc. publishing	0.	0.	0.	0.	0.	0.	0.	0.
Commercial printing	0.	0.	0.	0.	0.	.1	.0	0.
Manifold business forms	0.	0.	0.	0.	0.	.0	0.	0.
Greeting card publishing	0.	0.	0.	0.	0.	.1	0.	0.
Chemicals	0.	0.	0.	0.	0.	4.7	34.5	40.8
Industrial inorganic chemicals	0.	0.	0.	0.	0.	1.3	4.5	4.2
Plastics materials and synthetics	0.	0.	0.	0.	0.	1.0	4.6	2.4
Drugs	0.	0.	0.	0.	0.	.4	10.9	26.1
Soaps, cleaners, and toilet goods	0.	0.	0.	0.	0.	.1	1.8	2.6
Paints and allied products	0.	0.	0.	0.	0.	.1	1.4	.4
Industrial organic chemicals	0.	0.	0.	0.	0.	1.3	8.2	2.6
Agricultural chemicals	0.	0.	0.	0.	0.	.1	1.0	1.1
Misc. chemical products	0.	0.	0.	0.	0.	.5	2.1	1.5
Refined petroleum products	0.	0.	0.	0.	0.	1.0	4.0	0.
Petroleum refining	0.	0.	0.	0.	0.	1.0	3.7	0.
Paving and roofing materials	0.	0.	0.	0.	0.	.0	.1	0.
Misc. petroleum and coal products	0.	0.	0.	0.	0.	0.	.2	0.
Rubber and plastic products	0.	0.	0.	0.	0.	1.7	4.3	0.
Tires and inner tubes	0.	0.	0.	0.	0.	.5	1.4	0.
Rubber and plastic hose and belting	0.	0.	0.	0.	0.	.0	.2	0.
Fabricated rubber products, n.e.c.	0.	0.	0.	0.	0.	.3	.8	0.
Misc. plastic products	0.	0.	0.	0.	0.	.8	2.0	0.
Leather products	0.	0.	0.	0.	0.	.0	.1	0.
Footwear, except rubber	0.	0.	0.	0.	0.	.0	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Transportation, communications, public utilities	6.6	0.	0.	0.	0.	13.0	1.8	0.
Transportation, except railroads	1.9	0.	0.	0.	0.	1.1	.4	0.
Trucking and warehousing	0.	0.	0.	0.	0.	.1	.0	0.
Water transportation	1.9	0.	0.	0.	0.	.8	.1	0.
Air transportation	0.	0.	0.	0.	0.	.1	.3	0.
Pipelines, except natural gas	0.	0.	0.	0.	0.	.0	.0	0.
Transportation services	0.	0.	0.	0.	0.	.0	.0	0.
Communication	0.	0.	0.	0.	0.	3.0	.0	0.
Telephone	0.	0.	0.	0.	0.	2.8	.0	0.
Radio and TV broadcasting	0.	0.	0.	0.	0.	.2	.0	0.
Electric, gas and sanitary services	4.6	0.	0.	0.	0.	8.9	1.4	0.
Wholesale and retail trade	0.	0.	0.	0.	0.	.9	1.7	0.
Wholesale trade	0.	0.	0.	0.	0.	.7	1.6	0.
Durable goods wholesalers	0.	0.	0.	0.	0.	.5	.3	0.
Nondurable goods wholesalers	0.	0.	0.	0.	0.	.2	1.3	0.
Retail trade	0.	0.	0.	0.	0.	.2	.1	0.
Building materials and garden supplies	0.	0.	0.	0.	0.	0.	.0	0.
General merchandise stores	0.	0.	0.	0.	0.	.0	0.	0.
Food stores	0.	0.	0.	0.	0.	.0	.0	0.
Auto dealers and service stations	0.	0.	0.	0.	0.	.0	0.	0.
Furniture and home furnishing stores	0.	0.	0.	0.	0.	0.	0.	0.
Eating and drinking places	0.	0.	0.	0.	0.	.1	0.	0.
Misc. retail stores	0.	0.	0.	0.	0.	.0	.0	0.
Finance, insurance and real estate	.9	0.	0.	0.	0.	.6	0.	0.
Banking	0.	0.	0.	0.	0.	.1	0.	0.
Federal Reserve banks	0.	0.	0.	0.	0.	0.	0.	0.
Commercial and stock saving banks	0.	0.	0.	0.	0.	.1	0.	0.
Mutual savings banks	0.	0.	0.	0.	0.	0.	0.	0.
Other credit agencies	0.	0.	0.	0.	0.	0.	0.	0.
Personal credit institutions	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity brokers and dealers	0.	0.	0.	0.	0.	0.	0.	0.
Security brokers and dealers	0.	0.	0.	0.	0.	0.	0.	0.
Security and commodity services	0.	0.	0.	0.	0.	0.	0.	0.
Insurance	0.	0.	0.	0.	0.	.1	0.	0.
Life insurance	0.	0.	0.	0.	0.	0.	0.	0.
Medical services and health insurance	0.	0.	0.	0.	0.	0.	0.	0.
Fire, marine and casualty insurance	0.	0.	0.	0.	0.	0.	0.	0.
Insurance agents, brokers, and service	0.	0.	0.	0.	0.	.1	0.	0.
Real estate	.9	0.	0.	0.	0.	.4	0.	0.
Real estate operators and lessors	0.	0.	0.	0.	0.	.1	0.	0.
Subdividers and developers	.4	0.	0.	0.	0.	.1	0.	0.
Investment and holding companies	0.	0.	0.	0.	0.	.4	0.	0.
Holding company offices	0.	0.	0.	0.	0.	.1	0.	0.
Misc. investing	0.	0.	0.	0.	0.	.0	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians							
	Surveyors	Mechanical engineering	Specification writers	Civil engineering	Oil exploration	All other engineering	Total science	Biological
Services	74.4	13.4	100.0	100.0	0.	16.9	22.2	16.8
Hotels, motels, and lodging places	0.	0.	0.	0.	0.	.4	0.	0.
Business services	0.	13.4	0.	0.	0.	5.8	14.1	0.
Advertising	0.	0.	0.	0.	0.	.0	0.	0.
Mailing, reproduction, etc. services	0.	0.	0.	0.	0.	0.	0.	0.
Personnel supply services	0.	0.	0.	0.	0.	.7	0.	0.
Computer and data processing services	0.	.4	0.	0.	0.	.4	0.	0.
Misc. business services	0.	13.0	0.	0.	0.	4.7	14.1	0.
Repair services	0.	0.	0.	0.	0.	.1	0.	0.
Electrical repair services	0.	0.	0.	0.	0.	.0	0.	0.
Misc. repair services	0.	0.	0.	0.	0.	.1	0.	0.
Motion pictures	0.	0.	0.	0.	0.	.3	0.	0.
Motion picture production	0.	0.	0.	0.	0.	.2	0.	0.
Other services	74.4	0.	100.0	100.0	0.	10.3	8.1	16.8
Medical and dental laboratories	0.	0.	0.	0.	0.	0.	0.	0.
Job training and vocational rehabilitation	0.	0.	0.	0.	0.	.1	0.	0.
Business associations	0.	0.	0.	0.	0.	1.7	.1	0.
Professional membership organizations	0.	0.	0.	0.	0.	.0	0.	0.
Civic, social and fraternal organizations	0.	0.	0.	0.	0.	0.	0.	0.
Religious organizations	0.	0.	0.	0.	0.	0.	0.	0.
Engineering and architectural services	74.4	0.	100.0	100.0	0.	4.1	2.3	.7
Noncommercial educational, scientific and research organizations	0.	0.	0.	0.	0.	4.0	5.3	16.0
Accounting, auditing and bookkeeping	0.	0.	0.	0.	0.	.2	0.	0.
Services, n.e.c.	0.	0.	0.	0.	0.	.2	.2	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Total	100.0	100.0	100.0
Mining	4.5	1.2	2.4
Metallic minerals	.8	0.	.3
Iron ore	.1	0.	.0
Copper ore	.1	0.	.1
Lead and zinc ores	.1	0.	.0
Ferroalloy ores, except vanadium	.1	0.	.1
Metal mining services	.1	0.	.0
Misc. metallic ores	.4	0.	.1
Coal	.3	.1	.3
Bituminous and lignite	.3	.1	.2
Oil and gas extraction	2.6	1.1	1.4
Crude petroleum and natural gas	2.2	.7	1.0
Oil and gas services	.3	.3	.4
Nonmetallic mineral mining	.7	0.	.4
Crushed and broken stone	.1	0.	.1
Clay, ceramic, etc., minerals	.3	0.	.0
Chemical and fertilizer minerals	.4	0.	.1
Construction	0.	.8	2.7
General building contractors	0.	.3	.9
Residential building contractors	0.	.1	.0
Operative builders	0.	0.	.1
Nonresidential building contractors	0.	.2	.8
Other construction contractors	0.	.5	1.2
Highway and street construction	0.	.1	.2
Heavy construction except highway	0.	.4	1.0
Special trade contractors	0.	.1	.6
Plumbing, heating, air conditioning	0.	0.	.1
Electrical work	0.	0.	.1
Roofing, sheet metal work	0.	0.	0.
Concrete work	0.	0.	.0
Misc. special trade contractors	0.	.1	.3
Manufacturing	67.7	30.9	52.9
Durable goods manufacturing	13.4	24.6	36.7
Lumber and wood products	.6	.1	.4
Logging camps and contractors	.1	0.	.0
Sawmills and planing mills	.2	0.	.2
Millwork, and related products	.1	.1	.1
Wood buildings and mobile homes	0.	0.	.1
Misc. wood products	.1	0.	0.
Furniture and fixtures	0.	.3	.4
Household furniture	0.	.2	.2
Office furniture	0.	.1	.0
Public building furniture	0.	0.	.0
Partitions and fixtures	0.	.0	.0
Misc. furniture and fixtures	0.	.0	.0
Stone, clay and glass products	2.6	.3	1.3
Flat glass	0.	.0	.1
Glass and glassware, pressed or blown	.5	.1	.4
Products of purchased glass	0.	0.	.1
Hydraulic cement	.4	.0	.1
Structural clay products	.1	.0	.0
Pottery and related products	.2	.0	.0
Concrete, gypsum, and plaster products	.2	0.	.2
Misc. nonmetallic mineral products	1.2	.1	.3

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Primary metals	.9	.7	3.2
Blast furnace and primary steel products	.5	.4	1.4
Iron and steel foundries	0.	.1	.3
Primary nonferrous metals	.1	.0	.3
Secondary nonferrous metals	.1	.0	.2
Nonferrous rolling and drawing	.2	.2	.7
Nonferrous foundries	0.	0.	.1
Misc. primary metal products	0.	0.	.1
Fabricated metal products	.0	1.1	3.0
Metal cans and shipping containers	0.	0.	.1
Cutlery, handtools, and hardware	0.	.2	.2
Plumbing and heating products	0.	.1	.1
Fabricated structural metal products	0.	.4	.9
Screw machine products, bolts, etc.	0.	.1	.1
Metal forgings and stampings	0.	.1	.3
Coating, engraving and allied services	.0	0.	.2
Ordnance and accessories	0.	.1	.5
Misc. fabricated metal products	0.	.3	.4
Machinery	.4	13.2	6.9
Engines and turbines	0.	.3	.7
Farm and garden machinery	0.	.2	.2
Construction and related machinery	0.	.5	1.4
Metalworking machinery	0.	.3	.6
Special industry machinery	.3	.2	.4
General industrial machinery	.1	.4	.7
Office and computing machines	0.	11.1	2.2
Refrigeration and service industry machinery	.0	.1	.3
Misc. machinery	0.	0.	.4
Electrical machinery	2.7	4.1	7.8
Electrical distribution equipment	0.	.1	.2
Electrical industrial apparatus	.2	.4	.7
Household appliances	.5	.1	.3
Electrical lighting and wiring equipment	.2	.2	.2
Radio and TV receiving equipment	0.	.1	.3
Communications equipment	.7	1.8	4.8
Electronic components and accessories	.8	1.1	.8
Misc. electrical equipment	.3	.1	.6
Transportation equipment	2.0	2.2	8.5
Motor vehicles and equipment	.1	.5	.9
Aircraft and parts	1.7	1.5	4.7
Ship and boat building and repairing	.1	.1	1.1
Railroad equipment	0.	.1	.1
Guided missiles and space vehicles	0.	0.	1.6
Misc. transportation equipment	0.	.0	.1
Instruments	3.7	2.4	5.0
Engineering and scientific instruments	.3	1.3	1.1
Measuring and controlling instruments	.1	.5	.4
Optical instruments and lenses	.2	.1	.2
Medical instruments and supplies	2.0	.2	2.1
Ophthalmic goods	0.	.0	.1
Photographic equipment and supplies	1.2	.2	1.1
Watches, clocks, and watchcases	0.	.0	.1
Miscellaneous manufacturing	.5	.3	.3
Musical instruments and parts	0.	.0	.0
Toys and sporting goods	.1	.1	.1
Pens, pencils, office and art supplies	.2	.0	.0
Costume jewelry and notions	.0	.0	.0
Misc. manufacturers	.1	.0	.2

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Nondurable goods	54.2	6.2	16.2
Food and food products	1.0	.4	2.2
Meat products	0.	0.	.3
Dairy products	0.	0.	.1
Canned and preserved fruits and vegetables	.4	.2	.4
Grain mill products	.5	0.	.3
Bakery products	0.	0.	.2
Sugar and confectionery products	0.	.1	.3
Fats and oils	0.	0.	.1
Beverages	.1	.1	.1
Misc. food and kindred products	0.	0.	.4
Tobacco manufactures	0.	.1	1.4
Cigarettes	0.	.1	1.1
Textiles	8.0	.7	2.3
Weaving mills, cotton	.4	.1	.2
Weaving mills, synthetics	.5	0.	.8
Knitting mills	.7	.1	.2
Textile finishing, except wools	1.3	0.	.2
Floor covering mills	3.6	.4	.5
Yarn and thread mills	.3	0.	.1
Misc. textile goods	.9	.0	.2
Apparel	.2	.3	.7
Men's and boys' furnishings	.0	.2	.2
Women's and misses' outerwear	.0	0.	.2
Women's and children's undergarments	.1	.0	.1
Misc. fabricated textiles	.1	.1	.1
Paper and allied products	1.6	.4	1.2
Pulp mills	0.	0.	.1
Paper mills, except building paper	1.1	.1	.5
Paperboard mills	.1	.0	.1
Misc. converted paper products	.4	.1	.3
Paperboard containers and boxes	0.	.1	.1
Printing and publishing	.0	1.5	1.5
Newspapers	0.	.4	.1
Periodicals	0.	.4	.1
Books	0.	.2	.2
Misc. publishing	0.	.1	.1
Commercial printing	.0	.2	.2
Manifold business forms	0.	.0	.1
Greeting card publishing	0.	0.	.7
Chemicals	33.0	2.0	5.1
Industrial inorganic chemicals	4.6	.2	.8
Plastics materials and synthetics	5.2	.3	1.8
Drugs	7.2	.5	.9
Soaps, cleaners, and toilet goods	1.6	.2	.2
Paints and allied products	1.7	.1	.3
Industrial organic chemicals	9.5	.5	.5
Agricultural chemicals	.9	.1	.4
Misc. chemical products	2.3	.2	.2
Refined petroleum products	4.9	.5	.5
Petroleum refining	4.6	.5	.5
Paving and roofing materials	.2	.0	.1
Misc. petroleum and coal products	.2	.0	.0
Rubber and plastic products	5.4	.4	1.2
Tires and inner tubes	1.7	.1	.3
Rubber and plastic hose and belting	.2	0.	.3
Fabricated rubber products, n.e.c.	.9	.1	.1
Misc. plastic products	2.5	.2	.5
Leather products	.1	.0	.2
Footwear, except rubber	0.	0.	.1

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Transportation, communications, public utilities	2.3	7.2	11.9
Transportation, except railroads	.5	2.8	6.2
Trucking and warehousing	.0	.5	.1
Water transportation	.1	1.3	5.0
Air transportation	.3	.7	.8
Pipelines, except natural gas	.0	.0	0.
Transportation services	.0	.2	.2
Communications	.0	2.3	1.1
Telephone	.0	2.0	.7
Radio and TV broadcasting	.0	.4	.3
Electric, gas and sanitary services	1.8	2.0	4.6
Wholesale and retail trade	2.1	10.3	14.0
Wholesale trade	2.0	8.8	6.9
Durable goods wholesalers	.4	5.7	4.5
Nondurable goods wholesalers	1.6	3.1	2.4
Retail trade	.1	1.6	7.1
Building materials and garden supplies	.0	.0	.0
General merchandise stores	0.	.8	2.9
Food stores	.0	.2	.1
Auto dealers and service stations	0.	.0	1.0
Furniture and home furnishing stores	0.	.0	.3
Eating and drinking places	0.	.1	.4
Misc. retail stores	.1	.3	2.4
Finance, insurance and real estate	0.	15.5	0.
Banking	0.	4.2	0.
Federal Reserve banks	0.	.3	0.
Commercial and stock saving banks	0.	3.9	0.
Mutual savings banks	0.	.2	0.
Other credit agencies	0.	.5	.0
Personal credit institutions	0.	.4	0.
Security and commodity brokers and dealers	0.	.7	0.
Security brokers and dealers	0.	.5	0.
Security and commodity services	0.	.2	0.
Insurance	0.	9.6	0.
Life insurance	0.	4.6	0.
Medical services and health insurance	0.	1.3	0.
Fire, marine and casualty insurance	0.	3.1	0.
Insurance agents, brokers, and service	0.	.6	0.
Real estate	0.	.0	0.
Real estate operators and lessors	0.	.1	0.
Subdividers and developers	0.	.1	0.
Investment and holding companies	0.	.9	0.
Holding company offices	0.	.4	0.
Misc. investing	0.	0.	0.

Table B-9.—Percent distribution of scientists, engineers, and technicians by occupation: August 1980—Con.

Industry	Technicians		
	All other science	Total computer programmers	All other
Services	23.5	34.1	16.1
Hotels, motels, and lodging places	0.	.1	0.
Business services	17.6	29.0	10.8
Advertising	0.	.1	0.
Mailing, reproduction, etc. services	0.	.3	0.
Personnel supply services	0.	.4	2.2
Computer and data processing services	0.	21.6	1.0
Misc. business services	17.6	6.5	7.6
Repair services	0.	0.	.3
Electrical repair services	0.	0.	.0
Misc. repair services	0.	0.	.2
Motion pictures	0.	0.	0.
Motion picture production	0.	0.	0.
Other services	5.9	5.0	4.9
Medical and dental laboratories	0.	0.	.6
Job training and vocational rehabilitation	0.	0.	0.
Business associations	.2	.0	.3
Professional membership organizations	0.	.0	.3
Civic, social and fraternal organizations	0.	.0	0.
Religious organizations	0.	.8	0.
Engineering and architectural services	2.7	1.9	1.3
Noncommercial educational, scientific and research organizations	2.7	.6	1.6
Accounting, auditing and bookkeeping	0.	1.6	.3
Services, n.e.c.	.3	.1	.4

[1] Less than .05.

Note: Components may not add to totals because of rounding. Industries with less than .05 thousand total SE&T employment are not shown separately.

Sources: Bureau of Labor Statistics and National Science Foundation

Table B-10.—Scientists, engineers, and technicians in private industry as a percent of total industry employment by major industries: August 1980

Selected Industries	Scientists, engineers, and technicians	Scientists					Engineers	Engineering and science technicians
		Physical	Life	Mathematical	Computer specialists	Social		
Total industries	3.4	0.1	(1)	(1)	0.2	(1)	1.3	1.7
Mining	7.4	1.9	0	0.1	.3	0	2.6	2.5
Coal	2.7	(1)	0	(1)	(1)	0	1.5	1.2
Oil and gas extraction	10.5	3.0	0	.2	.5	0	3.5	3.3
Construction	2.3	0	0	0	(1)	0	1.1	1.1
General building contractors	1.8	0	0	0	(1)	0	.9	.9
General contractors, excluding building	4.7	0	0	0	.1	0	2.9	1.7
Special trade contractors	1.6	0	0	0	0	0	.5	1.1
Manufacturing	6.2	.3	0.1	(1)	.2	(1)	2.8	2.8
Primary metals	3.7	.2	0	0	.2	0	1.7	1.7
Fabricated metals	4.2	.1	0	(1)	.1	0	1.8	2.2
Machinery	11.0	(1)	0	(1)	.4	0	4.7	5.6
Electrical machinery	13.6	.1	0	.1	.3	0.1	7.2	5.7
Transportation equipment	11.6	.1	0	.2	.3	.1	7.4	3.6
Instruments	12.8	.4	(1)	(1)	.1	0	5.7	6.3
Chemicals	13.2	3.2	1.1	.2	.5	0	3.4	5.1
Refined petroleum products	12.2	2.4	0	.5	.1	0	5.2	4.2
Transportation, communications and public utilities	3.5	(1)	0	(1)	.2	(1)	1.5	1.8
Transportation	.1	(1)	0	(1)	(1)	(1)	(1)	.1
Communication	5.4	0	0	(1)	.3	(1)	2.8	2.3
Electric, gas & sanitary services	9.7	.2	0	0	.5	0	3.9	5.2
Wholesale and retail trade	1.0	(1)	(1)	(1)	.1	(1)	.2	.6
Wholesale	3.5	(1)	(1)	(1)	.5	(1)	.8	2.2
Retail	.1	(1)	(1)	(1)	(1)	(1)	(1)	.1
Finance, insurance and real estate	1.3	(1)	0	.2	.4	(1)	.1	.6
Banking	1.1	0	0	0	.5	.1	.1	.5
Insurance	3.4	0	0	.6	1.0	(1)	.3	1.4
Real estate	.6	0	0	0	(1)	0	.2	.3
Services	3.5	.1	(1)	(1)	.3	.1	1.0	1.9
Business services	9.0	.5	.1	.2	1.3	.2	2.2	4.6
Repair services	1.6	0	0	0	0	0	(1)	1.6

[1] Less than .05.

Note: Component may not add to totals because of rounding.

Sources: Bureau of Labor Statistics and National Science Foundation.

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